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AUTHOR Spaulding, Seth; And Others
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ABSTRACT

This report presents the papers and meeting documents from a forum of selected, multinational higher education experts who were brought together to examine higher educational issues, the ways of researching them, and the ways of encouraging more research on higher education (with emphasis on developing countries). An overview of the global issues discussed during the Forum and in the working papers appears in chapter 1 of the report. Chapters II, III, and IV present results from three working group sessions that examined the research needed in the following areas: policy; administration, management, and governance systems; curriculum; teaching methods; educational materials and technologies; and student and faculty development and evaluation. In addition, the report presents final-session results wherein all three groups considered implementation strategies for encouraging and supporting the kinds of higher education research they were recommending. Finally, chapter V presents the recommendations for future action by intergovernmental agencies, governments, funding agencies, universities, and their faculty members arising from this session. Annexes include a list of the forum participants; the agenda and working plan for the meeting; and a summarization of the position papers, along with abstracts of the three working papers. Contains an index. (GLR)

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New Papers on Higher Education 2

Meeting Documents

Research on Higher Education in Developing Countries: Suggested Agendas and Research Strategies

Final Report

UNESCO-University of Pittsburgh
Forum of Experts on
Research on Higher Education
Pittsburgh, Pennsylvania, USA
March 17-19, 1991

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Meeting Documents

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Final Report

UNESCO-University of Pittsburgh
Forum of Experts on
Research on Higher Education
Pittsburgh, Pennsylvania, USA
March 17-19, 1991

Prepared by:
Seth Spaulding, James Mauch,
Stanley Nyirenda, Eugenie Potter,
Paula Sabloff, and John Weidman,
on behalf of the Forum participants

and with the assistance of:
Susan Cooper, Martial Dembélé, Albertha Graham,
Diane Hyra, Makan Konate, Heidi Streetman, and
Alhamdou Tounkara

ED-91/WS-29 Paris, 1991

The Division of Higher Education and Research of the UNESCO Secretariat produced, during 1983-1989, thirty-six titles in the series *Papers on Higher Education* (a complete list of titles appears on the last page). From 1990, this series will continue in a new form *New Papers on Higher Education* with two sub-titles: one, *Studies and Research* and the other, *Meeting Documents*.

1. *The Role of Higher Education in Society: Quality and Pertinence*. UNESCO - Non-Governmental Organizations 2nd Collective Consultation on Higher Education, Paris, 8-11 April 1991. (English/French) ED-91/WS-23.

The opinions expressed in the present study are those of the authors and do not correspond necessarily to the point of view of UNESCO.

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Note by the Secretariat

The Forum of Experts, the report of which is contained in this publication, was called upon to debate the theme of Research on Higher Education, with particular emphasis on developing countries. It was organized within the framework of the UNESCO programme aimed at acquiring greater knowledge of the contribution which research could bring to developing the quality and efficiency of higher education, faced with the rapidly changing needs of societies (25 C/5, Approved Programme and Budget 1990-1991, Programme 1.2.5).

The particular interest of this meeting was to review current and future trends in research on higher education worldwide and to suggest processes and mechanisms appropriate to its encouragement, from institutional to international levels. The conclusions and recommendations of this Forum of Experts will contribute to the report on higher education for the 21st century which will be prepared by UNESCO before the end of its Third Medium Term Plan (1990-1995).

The Division of Higher Education and Research wishes to express its gratitude for the special contribution made by Professor Seth Spaulding (University of Pittsburgh, USA) to the overall organization and success of the meeting.

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Opening Address

by Dimitri Beridze, Division of Higher Education and Research, UNESCO, Paris

Mr. Chairman,
Ladies and Gentlemen,
Dear Colleagues,

It gives me particular pleasure, on behalf of the Director-General of UNESCO, to congratulate you on the occasion of this Forum of Experts on Trends in Research on Higher Education.

This meeting is being organized in close cooperation between the Division of Higher Education and Research at the Secretariat of UNESCO in Paris, and the Institute for International Studies in Education of the School of Education at the University of Pittsburgh in the United States of America. I take this opportunity to thank our co-partners, represented here by the Forum Coordinators, Professors Seth Spaulding, James Mauch and John Weidman for their outstanding efforts to the effective organization of our meeting. I would like to extend my thanks to Professor Mark Ginsburg, Director of the Institute for International Studies in Education at the University of Pittsburgh and President of the Comparative and International Education Society, for his willingness to host this international event. I believe that all of us are grateful to Ms. Susan Cooper, our Arrangements Officer, for her tireless care for the participants arriving from other countries and cities other than Pittsburgh, and to Mr. Stanley Nyirenda, our Reports Officer, who has kindly accepted to serve this meeting and assure the records of the meeting with the loyalty objectivity and efficiency it merits.

Dear Colleagues,

After this short courtesy introduction, I feel it necessary to share with you some thoughts and information which have led UNESCO to convoke this Forum. You may be aware that the United Nations Organisation for Education, Science and Culture of the United Nations, being one of the specialized organisations of the United Nations family, with its Headquarters in Paris and some 40 representatives and offices all over the world, is probably today a unique structure of intellectual cooperation on a world wide scale. Around 160 countries are members of UNESCO, some 700 non-governmental organizations are actively involved in its work, as well as many thousands of individuals and institutions. However, our Organization is not universal, due

to the absence over the past five to six years of three countries, two of which are among the very founders of UNESCO - the United States and the United Kingdom. This continuing absence affects the foundations of UNESCO and has negative repercussions on the efficiency and quality of its action. A concrete example of this is higher education, a field to which Member States and the Director General of UNESCO, Professor Federico Mayor, attach increasing importance. A lack of, or insufficiency of contacts, of exchange of information, of joint research, of solid and stable links with the most rich and diversified systems of higher education in the U. S. and in the U. K., seriously undermines the efforts of both partners, UNESCO on the one hand and the academic world in these countries on the other, and finally, negatively contributes to the noble cause of international intellectual cooperation.

Nevertheless, and in spite of all sorts of difficulties, our Division and UNESCO's Centre for Higher Education in Europe (CEPES) with its headquarters in Bucharest, Rumania, takes all possible measures to overcome this gap through the distribution of the CEPES journal *Higher Education in Europe*, by engaging American and British experts and scholars in various programme activities, and finally through organizing joint meetings and research such as the one we are conducting now, to reach the academic community in the U. S. A. and in the U. K., to work together on the problems and challenges which face higher education on the eve of the new century. It will be for you to evaluate how successful we are and what should be done from now on to better meet this objective.

I would also like to say a few words on the current situation in the world and, more particularly, in Europe. You might agree that the recent developments in Eastern European countries and the Gulf crises, are of direct concern for the future of education and in particular, for higher education and research. It is probably premature to extrapolate on the consequences for higher education in Arab countries of the liberation of Kuwait and the change of *rapport de forces* in that region, but we can, nevertheless, trace some new directions and openings on the European scene. A concrete example of a new, favourable climate being established in Europe after the fall of the "Berlin wall" and a series of revolutionary changes in Eastern European countries, crowned by the adoption in November 1990 by the CSCE Conference, of the Paris Charter for Free Europe, is an ambitious project devoted to the creation of the University of the Peoples of Europe endorsed by the last 25th Session of the General Conference of UNESCO, held in Paris in Autumn 1989. This project, which is currently passing through a feasibility stage, aims to bring together many structures already existing in Europe, as well as mechanisms and schemes of inter-university cooperation, and to contribute to the construction of a new political and social landscape, free of ideological controversies. and open to real partnership and cooperation. The coming generation of European scholars. researchers and students should have granted

the appropriate educational framework to allow them to reach a stage when universities will rediscover their original sources of Alma Mater and teaching research and educational services will definitely cross borders and barriers to serve all of humanity.

The end of the confrontation in Europe will certainly have repercussions for the issue of academic mobility. Many more students than before will wish to do study abroad and the number of expatriate university staff might grow as well. Another problem relates to financing of higher education in countries which turn from centrally planned or command economy to market-oriented economies, as well as to those countries who have to build up or restore their industries and therefore have to appeal for university expertise.

The structural adjustment therefore imposed on higher education may provoke a new wave of unemployment for young graduates and the employment market could become even poorer due to the more liberal immigration policies under scrutiny in a number of Eastern European countries or due to the aggravation of the economic situation and the enormous external debt of many developing nations. The "Brain Drain" problem will extend its frontiers and might become painful even for those countries where the economies are still prosperous. The need to internationalize higher education, and the maintenance of the quality, efficiency and relevance to the needs of society as a whole and of the local community, will therefore become more and more evident for national and local educational authorities and policy makers.

How will research respond to all these challenges? Would it be feasible for researchers to make not only an in-depth analysis of this process of change but also to advise decision makers? Which issues and strategies should become priority areas for research on higher education in the coming one to two years and in the long-term ? Finally, what kind of action on the international scale could be envisaged in order to facilitate change, on the one hand, and to diminish its negative effects on the other? Certainly, there are many other questions which come to mind and, as usual, the answers to them are much less obvious.

Nevertheless, it is important to point out that UNESCO is aware of this change and in this regard about a year ago reoriented its programme devoted to higher education and intends to strengthen this reorientation in coming biennia. The most significant trends of this are: stimulation of cooperation with all parts of the academic community, involving as partners various university associations and non-governmental organizations and going even beyond to funding agencies and the economic sector, strengthening coordination and collaboration with other UN agencies and institutions active in the field of higher education (like the United Nations University, WHO, UNDP, the World Bank, etc.) and with regional and international intergovernmental orga-

nizations with fully developed branches working on higher education and research (like the Commonwealth Secretariat, EEC, the Council of Europe, the Council of Nordic Countries).

Another important trend in our current programme is that we tend to link higher education to the rest of the education system (other levels, formal and non-formal) and, to demonstrate how higher education is contributing to the development of the education system as a whole.

A third and more traditional aspect of our programme deals with the issue of academic mobility and mutual recognition of academic qualifications. But, here again, a novelty is that to ensure the future of academic mobility we intend to link up with a concerted plan of action in favour of universities in developing countries. This plan is known as a project of twinned universities or "UNITWIN."

This last project deserves some more explanation. The idea behind it is that more than ever unified efforts are needed to overcome the difficulties encountered by many higher education institutions in the developing countries. In addition to the scientific and technological gap between the industrialized countries and the rest of the world, we are today assisting/witnessing various crises of higher education in a majority of states. Bad management and administration, low cost-effectiveness and lack of modern equipment and teaching materials, over-populated classrooms and student dropout, and a lowering in the quality of teaching and research are some general examples of this kind. Therefore, there is an evident need for support and joint effort between universities of the industrialized and developing countries. Key features of UNITWIN will include information gathering, analysis and research on inter-university cooperation, improvement of advanced and post-graduate studies and high level research, support for university scientific libraries in developing countries, assistance in the field of distance higher education, efforts to improve management and staff development in higher education. It is foreseen to develop a scheme of international chairs (UNESCO Chairs or chairs established by UNESCO in conjunction with other partners), aimed to launch international programmes in a selected field and geared to reinforcing teaching and research capacity at higher education institutions in developing countries.

I should say a few words on a research programme run by my own Division. Properly speaking, not being a research institution, UNESCO has no special educational research programme. This is a task for specialized institutions associated with UNESCO, such as the International Institute for Educational Planning (IIEP) in Paris, the UNESCO Institute of Education in Hamburg, or the International Bureau of Education (IBE) in Geneva.

Nevertheless, we are launching and producing some research, mainly in conjunction with and as a follow-up to our programme-oriented activities. The Division of Higher Education and Research at UNESCO, which is the only Secretariat Unit dealing with the problems of institutional development of higher education world wide, in 1984-1989 produced a series "Papers on Higher Education," some 36 documents. From 1990 some 4 titles were produced in the series "New Papers on Higher Education." They include studies elaborated by individual authors as well as reports of various international meetings and round tables.

Many scholars on visit to UNESCO find it useful to consult these documents, but, unfortunately, their distribution is quite limited due to the small number of copies printed and the fact that these documents are free of charge. Our Division also produces some commercial publications such as the UNESCO best seller, *Study Abroad*, a volume of some 1400 pages with around 3200 entries concerning offers for post-secondary training, and which is the most complete publication of this type in the world.

One of the aims of our Forum will be to explore strategies, mechanisms and services needed to encourage Research on Higher education. You may like to know that UNESCO in close cooperation with the International Association of Universities and our joint Information Center on Higher Education, intends to develop computerised databases in this field. During the 1992-1993 biennia we envisage launching such a database in the Africa region. To my mind, it will be highly desirable, before launching the whole operation, to obtain the advice of the academic community as to the most appropriate strategies to be adopted in this regard. I hope that this Forum will provide such an opportunity and together with reviewing current trends and identifying priorities for future research, will produce some concrete suggestions and recommendations to UNESCO, to serve as guidelines in our future work.

I would like to thank all of you for accepting our invitation to attend this forum and to wish you full success in the deliberations which follow.

Introduction to the Report

by Seth Spaulding, University of Pittsburgh, Forum Chair

How the Forum came about

The UNESCO/Pitt Forum of Experts on Strengthening Capacities for Research on Higher Education (with emphasis on developing countries) represents a collaborative venture between UNESCO, the School of Education of the University of Pittsburgh and the Comparative and International Education Society. The units in the School of Education primarily responsible for the Forum were the Institute for International Studies in Education and the Department of Administrative and Policy Studies.

The idea of the Forum was to draw on selected higher education experts from many countries in attendance at the annual meeting of the Comparative and International Education Society, hosted by the Institute for International Studies in Education, School of Education, University of Pittsburgh from March 14-17, 1991. These selected specialists were asked to stay for two extra nights to participate in the Forum. To these invitees were added several more who were not attending the CIES Conference plus a number of graduate students on leave from higher education institutions in developing countries, many of who helped with conference arrangements and note taking.

The work plan and organization of the report

In two full days of discussion (from 2 P.M. on Sunday, March 17 to 1 P.M. on Tuesday, March 19), participants from some two dozen countries representing every geographic region discussed higher education issues, ways of researching them, and ways of encouraging research on higher education. Many brought position papers summarizing their research interests and concerns. An overview of **Global Issues** discussed during the Forum and in the working papers appears in Chapter I, prepared by Paula Sabloff.

The heart of the Forum consisted of three working groups. One group, chaired by G. D. Sharma (India), Helmut de Rudder (Germany), Nagat El-Sanabary (Middle East Consulting) and Paula Sabloff (University of Pittsburgh) concentrated on research needed on **Policy, Administration and Management, and Governance Systems**. A second group, chaired by Jan Sadlak (Canada) and James Mauch (University of Pittsburgh) concentrated on research needed on **Curriculum, Teaching Methods, Educational Materials and Technologies**. A third group, chaired by Kabiru Kinyan-

jui (Kenya) and John Weidman (University of Pittsburgh), concentrated on research needed on **Student and Faculty Development and Evaluation**. The results of these deliberations appear in Chapters II, III, and IV.

Although these chapters suggest issues, themes and topics within higher education which need further study and research, there is no attempt to generate a list of research priorities. Each working group made it very clear that research priorities must be established in the context of local needs and policy issues.

During the final sessions of the Forum, all three groups considered **Implementation Strategies** for encouraging and supporting the kinds of research on higher education which they were recommending. These discussions resulted in recommendations for future action by intergovernmental agencies, governments, funding agencies, universities and their faculty members. Here, the recommendations are specific and apply no matter what the substance of the research. Essentially, if there is no support for and infrastructure to sustain research on higher education, there will be little research of any kind. These recommendations are listed, each with a brief explanation, in Chapter V.

Annex I is the **List of Participants**; Annex II is the Agenda and Work Plan for the meeting. The **Position Papers** contributed by the participants are summarized, along with abstracts of the three working papers, by Professor Eugenie Potter in Annex III. These papers are also referred to in Chapter I, Issues of the Forum, when they illustrate a point made at the conference.

The issues in context

Today, nations, especially developing nations, are deeply and primarily concerned with education at the primary and secondary levels. However, it is important not to lose sight of the need for higher education as it significantly influences economic, socio-cultural, and political development. This is particularly true in the modern world where knowledge has become a very important source of economic transformation, societal development, and cultural preservation. In fact, the development of primary and secondary education greatly depends on the level and quality of higher education, though there is a bi-directional linkage between the two. Equally important, of course, is a better understanding of how the political, cultural and social context affects higher education. And, of course, there is need for further research into what happens inside the black box called higher education.

The issues demarcated in this report are at best a suggestive list and therefore will need to be adapted to particular national and international interests, keeping in view the priority of each nation, region, or other grouping. However, certain issues are of global concern. The academic community and policy makers do not have an adequate fund of analytical information about these new developments. Such issues, in our view, should therefore receive greater attention from the international, regional, national, and non-governmental agencies that formulate the schemes of promotion and financial support for research programs. These global issues are dealt with in detail in Chapter I and highlighted in the following chapters.

Otherwise, the participants agreed that they would not list priorities within each substantive area because of the great diversity of contexts within which research is done. Also, although many higher education issues were listed by each working group as needing further research, it was not always clear as to exactly the kind of research needed to clarify each issue. The most important step, however, is to identify the questions that are significant. Over time, researchers will find ways of providing information useful in answering those questions.

The strengths and weaknesses of the forum

One of the strengths and, at the same time, shortcomings of the Forum was the diversity of the participants. All, of course, had experience as faculty members and/or administrators of higher education institutions or as officers in Ministries of Education with responsibility for some aspect of higher education. Not all, however, could be said to be primarily researchers on higher education. Some were policy-makers and planners. Others were administrators. Some were consumers rather than producers of research on higher education. Perhaps between a one-third and one-half the participants could be said to be primarily engaged in research on higher education, though many others had participated to some degree in research studies.

The strength of this mix, of course, was that the issues discussed were representative of a broad range of higher education interests and the discussions were not limited to those agenda items only of interest to those engaged entirely in research. The disadvantage was that, in two days, it was not possible to enter into great detail in terms of describing research approaches and strategies in the various specialized areas.

Participants were mindful of the limitations of a two-day meeting. In order to continue the dialogue begun at the meeting, several participants have begun networks designed to continue the dialogue. One network is of researchers interested in gender issues in higher education; another is discussing

the preparation of a book based, in part, on a recent special issue of UNESCO's *Prospects* on higher education; yet another is discussing a book on international issues in higher education.

Acknowledgements

The final report was assembled and to a large extent written by the University of Pittsburgh organizing team, members of which were paired with the off-campus invited chairs and rapporteurs of each session. The Forum asked the organizing team to prepare the final report, based on documents written during the Forum, and to submit the report to them for their comments. This we have done, and this final report was put to press about a month after sending the first draft to participants.

Those participants and those on the organizing team who had primary responsibility for the several chapters of the report are identified in each chapter. However, none could have done this report without the effort of the recorders who provided copious notes on the various discussions at the Forum and who made suggestions concerning the report. The recorders,were as follows: Martial Dembélé, Albertha Graham, Diane Hyra, Makan Konate, Heidi Streetman, and Alhamdou Tounkara. The work of the recorders was coordinated by Stanley Nyirenda, Reports Officer for the Forum. All of the Forum arrangements were most capably handled by Susan Cooper. And, of course, the effort received the full support and encouragement of Mark Ginsburg, Director of the Institute for International Studies in Education of the School of Education and also President of the Comparative and International Education Society. Ginsburg also provided thorough and thoughtful editorial comments on the Final Report when it was in draft stage, may of which were taken into account in this final version. The staff of the Institute provided superb support for the Forum.

A final note

Throughout the report, we often speak of "universities" rather than of "higher education." This is because most of us were members of a university community and much of the research of which we speak would be done by universities and about universities. However, researchers, especially of higher education issues in developing countries, should examine those relating to post-secondary education in general, and should not limit themselves only to research on universities.

I - The Global Issues

by Paula Sabloff, University of Pittsburgh[1]

The tone of the Pitt/UNESCO Forum of Experts on Research on higher education was set by Vásquez de Miranda (Brazil), who commented in plenary session that the ultimate goal of the Forum is to propose guidelines for the promotion of a truly interdisciplinary science of higher education. It was the consensus of the participants that the subject matter of this science is the production and dissemination of knowledge, the organization of these activities, the environment in which these activities take place, and the purposes for which these activities are undertaken.[2] The study of higher education encompasses research ranging from explanation of the past and present to planning for the future, from local-level to global research, and from the pursuit of individual interests to collaborative projects.

Three working group reports, five plenary sessions, nineteen position papers, several background papers and numerous informal meetings during the conference reveal that the varied positions held by participants from some twenty-four nations can be resolved into one field of study if researchers of higher education keep in mind three major points. First, the science of higher education will be attained by incorporating and adapting the methodologies, methods, and techniques of many disciplines. Second, the science of higher education will be achieved through the sharing of ideas among people of different backgrounds and with different goals. And third, the science of higher education will be understood against a backdrop of the economic, socio-cultural, and physical environmental variables that shape and are shaped by higher education.

Interdisciplinary research

A science of higher education will develop by establishing a balance between the methodologies, methods, and techniques of various disciplines,

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[1] A number of participants prepared position papers prior to the Forum. This chapter is based, in part, on issues raised in those papers. Footnotes list authors who mentioned a point made in the chapter. An author-by-author abstract (by Professor Eugenie Potter) of each position and working paper appears in Annex III. Those who wish the complete paper should write to the author (addresses in the List of Participants, Annex I). Many other Forum participants made many of these same points during the working group and plenary discussions.

[2] Nikandrov, USSR.

including sociology, psychology anthropology, economics, organization theory, political science, and cognitive science. Researchers in higher education can advance the discipline by gaining insight and borrowing from more traditional disciplines to satisfactorily answer research questions that span a wide range of topics.[3]

Insight into higher education issues will increase by balancing inductive and deductive reasoning processes, that is, by encouraging the use of the ethnographic approach and the hypothesis testing approach, sometimes in one project. The new discipline will flourish if it includes both qualitative and quantitative methods of research, learning what questions to ask from qualitative research and demonstrating valid and reliable proof to colleagues and policy makers through the combination of qualitative and quantitative analysis.

Research questions will develop along two planes; the first is time. A balanced program of research will maintain interest in (a) explaining and preserving the past[4] and the present,[5] and (b) preparing for the future.[6] Research questions will include people and institutions facing different rates of political change, i.e., peace and crisis.[7] The second plane is space. The science of higher education will progress if an international and intra-national comparative approach is sustained.[8]

Knowledge will also increase when applied and theoretical research approaches complement one another.[9] Sometimes research projects may be oriented simultaneously toward building theory and helping the groups of people studied. An example of dual purpose research is the study of how the transformation of higher education institutions in Eastern European countries can support these nations' transition from socialist to free-market economies, thereby aiding government and university planners.[10] This kind of research can also aid researchers in understanding the linkages between the economy and higher education planning.

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[3]Yu Xu, People's Republic of China.

[4]Vásquez de Miranda, Brazil; Redie, Ethiopia; Yu Xu, People's Republic of China.

[5]Zajda, Australia; Nikandrov, USSR; Smyth, Australia; Sharma, India; and Tran, Vietnam.

[6]Orzack, USA; Freeman, USA, writing about Hungary.

[7]Redie, Ethiopia; Freeman, USA.

[8]Kinyanjui, Kenya; Altbach, USA.

[9]Redie, Ethiopia.

[10]Freeman, USA.

Forum participants differed, of course, on the prime purpose of research on higher education. Some felt that the primary function of research on higher education is to enable the higher education faculty and student body (i.e., future teachers at other levels of education) perform their function better.[11] Others felt that by developing research to solve practical problems in society (productivity in industry, for instance) the level of scientific research is itself raised.[12]

The integration of applied and theoretical perspectives in one project or in separate research can be stimulated by the collaboration of international agencies such as UNESCO and the World Bank. It can also be encouraged through collaboration between such agencies and the researchers themselves, for both agencies and researchers can not only suggest relevant research projects but also support professional associations, higher education journals, and research centers, where such work is encouraged.[13] When international agencies support research centers and professional associations, one consequence is that international collaboration and the exchange of ideas are enhanced.

Sometimes the support of international agencies inadvertently harms the development of research capabilities in universities of developing nations. One participant suggested that international agencies weakened university research in sub-Saharan Africa in the way they offered assistance to the universities[14]; the consequences for the universities included the weakening of undergraduate training, the limiting of universities' contribution to policy formulation, and the marginalization of public universities in the production of scientific and technological knowledge. He urged these agencies to rebuild the research component in African universities along the lines mentioned above.

Inter- and intra-national research

The science of higher education will mature by working across gender, ethnic, social class, and national boundaries. In other words, researchers will improve their science by working together, talking together, and, most important, listening to one another and to the people they study.

Research will flourish when individual endeavor is balanced by collaboration between researchers who: span the social science disciplines; in-

[11] For instance, Nikandrov, USSR.

[12] Qiang Lianqing and Hua Hongming, People's Republic of China.

[13] Altbach, USA.

[14] Kinyanjui, Kenya.

clude both sexes[15]; combine different nations' perspectives, especially industrialized and developing nations; and incorporate the perspectives of different ethnic and economic groups within each nation.[16] Through collaboration along all these lines, research on issues that need to be examined in higher education will take place, the quality of research will improve, and the voices of researchers in countries with fewer resources than those in the industrialized nations will have a better chance of being heard.[17]

Concurrent with exchange between developed and developing nations is the participation of people from different backgrounds and economic strata in higher education. One of the fundamental research questions we must resolve -- in every nation -- is why people from poverty backgrounds do not enroll in or, if they do enroll, do not complete higher education training.[18] The position of women of varying socio-economic strata is even more complex than men, for women form a subclass within each level of society.[19] This means that they face different pressures, treatment, and expectations as they progress through school at various levels. They also face gender inequities upon graduation from higher education. Research is needed on the joint effect of the factors of class and gender on participation in higher education, an issue that concerns the majority of higher education students today. There are rewards of integrating other voices into the formulation of research questions of theoretical and practical interest.

Studies of access are being undertaken in developing countries as well as in the industrialized nations.[20] Studies within and between nations, according to many at the Forum, should focus on (a) the relationship between higher education and national development in order to aid nations in future planning; (b) the impact of policy, planning and administrative practices and the role of teachers, students, and staff on the efficiency and development of the higher education system; and (c) equity in the higher education system.

The world is still divided between rich and poor, post-industrial/industrial and developing nations, and it is particularly important for researchers in industrial nations to generate new models of research that will in

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[15]Briceño, Colombia; Freeman, USA; Vásquez de Miranda, Brazil; Schaefer, Germany.

[16]Freeman, USA; Ortiz, Colombia.

[17]Tran, Vietnam; Redie, Ethiopia.

[18]Ortiz, Colombia.

[19]Briceño, Colombia.

[20]Sharma, India.

volve close collaboration with developing countries as the latter usually do not have sufficient resources to initiate the collaboration themselves.[21] Perhaps new collaborative models would help researchers from developing nations avoid the adoption of research methods that do not fit their countries' cultural patterns or economic, political, and social needs. Furthermore, new models of collaboration might stimulate researchers in the industrialized nations to seek new approaches to research, research that does not lead to increased consumption, domination of world markets, and, as an inevitable result, stress upon the environment.

The dissemination of research findings will improve the quality of research and reduce the possibility of needless duplication of effort. It was noted that although China has over 730 higher education research organizations (as of 1987) and about 10,000 papers published annually on higher education, there is little coordination or collaboration among researchers of different provinces.[22] The result is duplication of effort and low quality research. Information on research conducted in other nations would also improve the work undertaken.

A number of participants at the Forum urged that the higher education research network be expanded to include and involve Third World scholars in setting the agenda for research.[23] Professional journals are not available world-wide and that the dissemination of knowledge largely flows from industrial to developing nations. Dissemination is spotty and can be improved through the development and international distribution of topical bibliographies, "State-of-the-art" essays, and more imaginative use of the existing journals. Some large information systems such as the ERIC Clearinghouse on Education developed in the United States in the 1960s, may be able to help other countries. ERIC is presently expanding its coverage to other nations outside the USA and has adopted a technology that will make it feasible for researchers in other nations to access the system.[24] At the same time, the Forum warned that information systems and research databases must be established in each country and each region, in part to give credibility to national and regional research, especially in developing countries.

A necessary component of research is the training of future researchers. The science of higher education will be improved by training students who come from different nations and different groups within each nation. Researchers will gain insight into cross-cultural research problems by training

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[21] Beridze, UNESCO.

[22] Yu Xu, People's Republic of China.

[23] Altbach, USA.

[24] Fife, USA.

their own and each others' students to do research. One participant's description of the collaboration of the University of Sussex with Seychelles higher education system provides a model for a Western nation's support of a Third World island nation's ability to train its students.[25] The education of students and future professors, the exchange of resources from the industrialized nation to the developing nation, the opportunities for studying the development of a national higher education system lead naturally to the advocacy of international, inter-university collaboration.

Concomitant with encouraging industrialized nations to train researchers from developing nations is having students from industrialized nations study in developing nations. In this way, students from each area of the world will learn to understand and appreciate the problems of the other, and future collaborative networks will be formed from the beginning of students' careers.In the process of teaching, researchers also have the opportunity to listen to their students. Teachers know that research interests arise from the questions and interests of their students as well as from observation of the subject at hand.

Finally, higher education research will thrive when researchers listen to the people they study. Perhaps if researchers listen to education practitioners, for example, researchers of higher education will be able to increase the possibility that teachers will use their research results in their own work.[26]

Balance along all of these interdisciplinary and international dimensions will probably not lead higher education researchers to adopt one paradigm, for that does not seem possible or practical; researchers come from different philosophical bases and support different national goals. But the search for balance can lead researchers to improved understanding of the forces that shape the production and dissemination of knowledge.

The context of research on higher education

The interdisciplinary science of higher education can be achieved by embedding the subject matter -- the production and dissemination of knowledge and the organization of these activities -- in its political, economic and socio-

cultural contexts. These contexts range from the local level to the national, regional, and global levels.

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[25]Lacey, UK.

[26]Nikandrov, USSR.

Several participants recommend that research on higher education include the study of the global politico-economic trends that are currently transforming higher education institutions. Because knowledge is being restructured by global forces (i.e., put to the use of international capitalist organizations), higher education research must focus on understanding how these forces cause higher education institutions to restructure their roles as producers and disseminators of knowledge/information.[27]

Adjunct to international pressures on the production and dissemination of knowledge is the impending influence of international agreements on the educational and licensing requirements for entry into and practice in the professions.[28] Research on agreements such as the General Agreement on Tariffs and Trade (GATT) and the formation of the European Community will help nations prepare for the demographic and political changes that will result from new economic alliances.

The changing relationship between higher education and the governments of developing nations became a major theme of the conference. Some warned that because the goal of knowledge production has changed from the search for truth to the search for ways of augmenting power, knowledge has become increasingly nation-specific.[29] If this is so, then developing nations need to be wary of whose model of the university (the institution in which knowledge is produced and transferred) they adapt. In other words, universities in developing nations, even as they struggle against budgetary limitations and the social, economic, and political crises of their nations, have an obligation to guide their students through their own understanding, interpretation, and critical application of their cultural heritage to their own lives.

Higher education research is necessary for a developing nation's social and economic progress in part because such research can help improve the high-level manpower training needed by such countries.[30] Those who stress this function see higher education and the research conducted by higher education professionals as serving and preserving the varying cultures within and among nation-states. Of deep concern is the issue of the appropriate language used for instruction of children -- English or their native language. Also, should education be geared to preparation for some foreign examination or for use within the country? Some felt that the most pressing problem is to sup-

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[27]Smyth, Australia.
[28]Orzack, USA.
[29]Barros-Mani, Venezuela.
[30]Redie, Ethiopia.

port the government's efforts to improve teacher training/retraining and curriculum development in their countries.[31]

Radical governmental changes in Eastern Europe stress the need for research that examines (a) the role of higher education in social and economic change, (b) the increased possibilities for higher education to become more autonomous from the state, (c) the possibilities for higher education to support a shift in the economy (from command economies to free market strategies), and (d) the probability that higher education will be able to transform itself into a "democratic" governance system.[32] Higher education institutions in industrialized nations are needed to support the transformation of institutions in the former eastern block countries into institutions that more resemble those in the West in the sense that they promote, conduct, and disseminate research.

Some participants discussed the impact of economic and political changes taking place in the USSR on higher education. The call for glasnost and perestroika which so captured the imagination of the West has enabled the 898 higher education institutions to begin the process of democratization (self-governance). But the changes in the direction of the Soviet economy, i.e., the desire to compete more effectively in the global economy, have increased pressure on the institutions to raise academic and technological achievement. Such pressure should not reduce higher education to a single mission; research must also be preserved.[33]

Literature written in China on higher education also encompasses the themes of higher education's role in economic development, higher education's role in relation to changes in society, higher education and the political structure, and higher education's responsibility to the education of students at all levels of study. Higher education institutions directly stimulate economic development by entering into partnerships with industry for their mutual benefit.[34]

While discussion at the conference ranged from global to national development, the concept of development itself was redefined to include the economic and political development of nations, the cultural preservation of peoples within and among nations, and the preservation of the world-wide physical environment. It is the consensus of the conference that higher education

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[31]Tran, Vietnam.

[32]Sadlak, Canada.

[33]Zajda, Australia.

[34]Yu Xu, People's Republic of China; Qiang Lianqing and Hua Hongming, People's Republic of China.

research, because it encompasses the study of the production and dissemination of knowledge, has the inherent ability to encourage learning and research that helps developing nations to achieve parity with the industrial and post-industrial nations without sacrificing their unique perspective -- their culture.

Finally, higher education research can also stimulate research and learning that preserves our natural world. People of all nations must take responsibility for preserving the global environment. As Beridze[35] noted, three major global concerns in this area are global warming, some effects of chlorofluorocarbons (CFC's), and the destruction of the ozone layer. One of the principal objectives of higher education must be to educate future generations of researchers who will have a better understanding and commitment to cope efficiently with these problems. One of the major agendas for research will be to focus on how to provide effective environmental education.

Beridze summed up the Forum by saying that the agenda for higher education research will include the development of an international approach to research, i.e., international collaboration and sharing of information; the fostering of creativity within research and teaching; the practice of a multidisciplinary approach that encourages more flexibility, adaptability, and tolerance in young scholars; the improvement of learning through the transformation and development of universities; and the fostering of the ideas of peace and the interdependence of humanity.

[35]UNESCO

II - Policy, Administration and Management, Governance Systems

by Paula Sabloff and G.D. Sharma, with the assistance of Glenn Nelson, Rapporteur, and Albertha Graham, Makan Konate and Stanley Nyirenda, Recorders. Based on working group discussions chaired by G.D. Sharma, Helmut de Rudder, Nagat El-Sanabary and Paula Sabloff

Introduction

In order to improve the efficient and effective production and dissemination of knowledge relevant to policy, administration, management and governance of higher education, the Working Group advises that research be conducted in the following areas:

- **Higher education and development (quality of life)**
- **Development of higher education**

Studies under the first category, how universities can help nations achieve a higher quality of life, would generate information on and analysis of the role of higher education in national policy, particularly regarding planning for the future.

Studies within the second category would be directed toward the development of higher education itself. Here, research would include the effect of government policies on the development of higher education institutions, the formulation and implementation of policies regarding higher education, and the analysis of the gap between policy (governmental and institutional) and practice. For example, a pivotal research question is, What are the mechanisms and structures which will help reduce the gap between policy and practice in the future?

This category also concerns the extra-national forces that significantly influence the development of higher education. Research under this category would underscore the importance of global and regional (pan-national) trends and pressures on higher education, including national development and international cooperation.

The group also had recommendations relating to the following:

- **Type, quality, and direction of research**
- **Facilitation of research**

The kinds of paradigms and methodologies adopted for research projects have great bearing on research findings and policy recommendations. The issues included in this area would reflect on the quality of the research itself.

Essentially, a key agenda item for higher education research should be how to make our work relevant and useful to policy makers and how to make sure that research findings are used by policy makers. **How can we transform research and the information derived from it so that it is useful to policy makers?** This is both a political problem and a technical problem, for the work must be presented in such a format as to be accessible and presentable to policy makers. In the past, research in the above stated areas has largely stopped at formulating suggestions and recommendations. Therefore, practitioners have judged the recommendations to be 'impractical'. The Working Group suggests that recommendations would be more acceptable to practitioners if researchers analyze and conceptualize the possible implementation of their recommendations even as they formulate their research questions. In other words, action research would raise the importance and utility of research for practitioners.

At the same time that higher education research needs to inform policy makers, so policy makers need to institutionalize higher education research, especially in developing countries. Higher education research will neither exist nor grow without governmental support.

Although the Working Group was most concerned with stimulating higher education research in developing nations and with the role that such research can play in helping the developing nations to achieve their goals, the Working Group also affirms that basic and theoretical research be given due importance, for often the practical research of the future depends on the intellectual curiosity of researchers in the present.

Higher education and national/international development (quality of life)

The emphasis on research into higher education has so far been on establishing the linkage between higher education and economic growth. Such quantitative analysis can not capture the larger contribution made by higher

education (through the generation of knowledge, R&D, and skill formation) to the larger society. We suggest that future research on higher education linkages incorporate qualitative and quantitative analysis, thereby making it possible to research the following major issues:

• **How does the work of higher education (institutions and research) affect national policies** on economic development, environmental protection, cultural preservation of its various populations, and quality of life for the entire population?

• Research is needed on (a) **how the findings of applied research make their way to actual economic development projects**, and (b) **how graduates are employed in the labor force**. Tracer studies following tertiary school graduates into the national and international labor force would fill a gap in our knowledge on the relationship between higher education training and preparation for the labor force.

• Related to economic development is technology transfer, the introduction of new technologies developed in the institutions into a society. Research is needed on **how technology transfer affects a society -- its economic development, physical environment, class structure, general quality of life**. Representatives of developing and developed nations all expressed the concern that developing nations might adopt industrial patterns that have been known to have negative repercussions on industrial or post-industrial nations. It is hoped that higher education researchers will help developing nations devise a higher education system that will create new styles of life rather than perpetuate present ones. This new system should include concern for the environment and global peace.

• Another concern is the role of higher education in the development of primary and secondary school systems. **What are the present linkages between these levels of education and what should be the linkages of the future? How can tertiary institutions help primary and secondary institutions implement the global goal of education for all? Do the higher education institutions exacerbate class differences or offer alternatives to rigid societal separations?**

• Corollary to these questions is **how and why participation in higher education varies by social and economic class and ethnic group across and within nations**. Research should delve into both

government and institutional policies on participation, or access to higher education. Access includes not just entrance into the university or the completion of a degree but the distribution of students by class and ethnic group across the academic/professional disciplines. As women form a subgroup within each grouping, i.e., they are subject to different expectations than their male counterparts, research on women's participation in higher education needs special encouragement.

The development of higher education

The system of higher education is ostensibly created to enhance the production and dissemination of knowledge and information. However, the quality and development of higher education is dependent on the political, economic, and administrative structures found in each nation. The following research issues would therefore reveal the factors which cause gaps between policy and practice or which help improve the effectiveness and efficiency of higher education institutions as they fulfill their mission and goals.

• The first set of recommended research issues revolves around the impact of changing political forces on higher education. Changing political structures in many nations (nationalization, regionalization, internationalization, democratization, government instability) influence governments' view on the role of higher education in national life. Therefore, resource allocations to and regulations of higher education institutions are affected. Research is needed regarding **the mechanisms and processes of national and institutional decision-making, planning, and resource allocation**; research is also needed on **the linkages between research (applied and theoretical) and policy formulation** on both the governmental and institutional levels. Of particular interest to the Working Group is research on **government and institutional policies regarding graduate study at home and abroad** (e.g., the impact of graduates trained abroad in their home country; the impact of students trained abroad who do not return to their home country; the economic, social, and cultural problems of students studying abroad and in their home country).

• National economic goals also influence the development of higher education, for governments must prioritize the allocation of scarce resources and stimulate growth in specific areas of research and training. In both industrialized and developing nations, the training of a skilled labor force is critical to national economic survival. **What are the higher education institutions doing to promote such training? What do they need to**

do their job better? How can institutions from other nations help the developing countries to reduce the gap between the industrialized and developing nations in this sphere?

• Members of the Working Group recommend that some research focus on the **transformation of universities as producers and disseminators of the new consumer product, information.** How will universities cope with the fact that such information changes with increasingly greater speed? This is but one of many issues regarding the role of external forces on the development of institutions of higher education.

• Research is also needed to improve the understanding of governance in higher education institutions. For example, **what is the relationship between developmental universities (i.e., those that serve the state) and humanitarian universities (i.e., those that are able to serve the state, the society, and its own members, the faculty)? How can universities maintain or develop academic freedom and still be accountable to the state and society? What role should faculty play in the governance of an institution?**

Higher education has always been concerned with issues of its own excellence and relevance. Research to aid in the achievement of these goals would include

• The impact of financial exigencies on the generation and dissemination of knowledge;

• The interaction of professional groups with higher education, namely how professionals trained in higher education institutions might contribute to the improved training of future professionals;

• Linkages between research and teaching, including the relationship between the university reward structure or incentive mechanisms for faculty and the quality of research and teaching;

• The inclusion of the relevance of higher education to society in and the indicators of quality used to judge the institution (do the quality indicators used to judge the institutions include the relevance of the institution to the society?); and

• The role of accreditation and certification in promoting excellence in the institutions.

Whereas the greatest concern in higher education is that the institutions be effective, i.e., that they serve their clients well, higher education institutions must also act efficiently as resources are directed to other areas within a national economy. To this end, the Working Group recommends that research be conducted on **how institutions are managed (e.g., enrollment planning, participation of all members of the community, inter-institutional coordination)**.

Types, quality, and direction of research

Research is not only stimulated by a concern for issues but also by the theoretical and methodological approach of the researcher. The Working Group recommends that the best way to improve higher education research into policy (the influence of higher education on national policy and the influence of national policy on the development of higher education), governance of the higher education institutions, and the administration and management of institutions is to **expand the different approaches to research so that they include many paradigms of analysis such as feminist research**. Further discussion on the ethics and legitimacy of research as well as the influence of the researchers' cultural values, practices and ideology in research should be held.

Any progress must be made from the baseline of what already exists. Therefore, **an inventory of present and completed research efforts needs to be made**. Once researchers know what has already been accomplished by researchers all over the world, new projects could fill in gaps.

All types of research need to be pursued: **applied and theoretical, macro- and micro-level, longitudinal and transversal, qualitative (ethnographic) and quantitative**, etc. Innovative research, especially research that focuses on the needs of developing nations, should be especially encouraged.

Research is often encouraged and influenced by the support it receives. Thus the Working Group **urges that funding agencies at all levels support a broad range of research**. At the same time, researchers need to be aware of the political implications of using different sources of funding.

Conclusion

The Working Group expressed great hope that higher education research can simultaneously remain relevant to the needs of the nation in which the research is conducted and stimulate theoretical research as well. The best way to encourage beneficial research is to improve interaction between researchers of different nations and interests.

III - Curriculum, Teaching Methods, Educational Materials and Technologies

by James Mauch and Jan Sadlak with the assistance of Bruce Anthony Jones, Rapporteur, and Martial Dembélé, Albertha Graham and Heidi Streetman, Recorders. Based on working group discussions chaired by James Mauch and Jan Sadlak.

Introduction

It was an expression of the collective view of the group that the teaching curricula and research agenda have to take into account that present students are being prepared for the 21st century, and will work under new conditions, for example in relationship with the environment. Issues like global warming and pollution pose fundamental problems to a continuation of life, and to patterns of economic interactions and social agenda as well. These problems are exacerbated by the growing disparity between the nations, rich and poor, the developed and less developed, powerful and powerless, free and oppressed, north and south. It is imperative that the education systems prepare for this uncertain future filled with problems and possible disasters, and that research on higher education take into account these considerations.

Recommendations

1. The recommendation of highest priority coming out of the first session was that of **improving the rate of participation of minorities and other disadvantaged groups in higher education**. The discussion was concerned with the need for research on present conditions, as well as how to move toward more equity.

The discussion about the effect of technology on the issue of equity, for example, raised the question of whether an increasingly technological world increase the gap between poor and rich, or does technology promise to help close the gap.

The effects of teaching methods, curricula, language of instruction, and materials on the socio-economic opportunities of women, racial, ethnic, and linguistic groups, and social classes was of important concern. Many expressed the fear that our present methods and materials reinforce the values and learning strategies of the academically successful (usually the economic, political and cultural elites), and perpetuate an academic elite who find little diffi-

culty in gaining entrance and success in higher education. Much research on higher education needs to focus on the how teaching methods, curricula, language of instruction, and new as well as traditional teaching materials can be used successfully to destroy those barriers to higher education which exist to exclude minorities, women, racial, ethic and linguistic groups, and the poor.

Also, research is needed on the variables in each society that influence individual decisions to gain access to higher education, and on the strategies that might effectively implement equalization policies where they exist.

Research is also needed on methods of democratization of higher education, including the changing of teaching processes and governance structures so as to empower and help students to identify problems and realistic solutions to the barriers of access and equity which exist.

2. It was recommended that research on higher education examine the **changing role of the university in professional education programs**, especially with regard to other post-secondary education providers, and with regard to the increasingly interdisciplinary world in which higher education exists.

Transferability (articulation) from specialized schools like teacher education colleges to other higher education programs, can have a powerful effect on improving access and making higher degrees more available to minorities and other powerless groups. Recognizing prior experience of the students is another means to the same ends. Research recommendations include the descriptions of programs that are successful, with an analysis of causes of success

The Group noted that control of professional preparation, and control of entrance to professions, in many countries is a way to deny access and continue policies that exclude. New and more relevant institutions of higher education may be doing a better and more cost effective job of preparing professionals, but in many cases their graduates cannot obtain the credentials or degrees or status commensurate with their training. The students of these newer institutions are those who cannot or choose not to enter the university with its traditional emphasis on the disciplines in an increasingly interdisciplinary world. As one group member put it, the real world is not divided into disciplines, and the most persistent and fundamental problems of higher education, such as equity and access, do not belong to a discipline.

3. The group also felt more research was needed on the effectiveness of curricular **attempts to humanize higher education**, including the examination of shared human values and their contribution to peace and a respect for common human rights. A study of cultures and the differential effects of

higher education institutions on building a world characterized by peace and respect for human rights would be an important contribution to the literature in each country.

4. Research on **teaching methods and curricular methods that would foster creativity and critical examination of values, data, and assertions** is needed. Members of the group pointed out that so much of teaching in higher education is dependent on lecturing, with the result that students' formal education is based on simply receiving information from a lecture, with little effort to go beyond that. Without enabling students to develop their creativity and capacity for and orientation toward critical examination, we are in danger of passing on ignorance to students, rather than giving them the tools of empowerment and advancement.

The identification of the effects of teachers at all levels of education as critical thinkers and social actors is an area of research barely touched in many societies. What effects do teachers have, if any, and do these effects reinforce the present conditions, or lead to better education and society?

5. Evaluation studies are needed on **how well higher education programs meet the needs of society** and other stakeholders, and what can be done to make programs more relevant. It would be an interesting research study to identify whose culture and knowledge is incorporated into the curriculum of higher education. For whose benefit, in whose interests, and what are the effects? Also studies on the extent that physical conditions of schools, including problems of campus violence, affect universities and access to them.

Other recommended studies that relate to the relevance of higher education include a description and evaluation of community extension projects; the "hidden curriculum" and the university culture--descriptions and assessment of differential effects among social groups; the processes of curriculum development and implementation, including studies on the decision making processes in higher education, including decisions about content, methodology, and access; also the effects of these decisions inside the institution and in society; how democratic are these processes, and who makes the decisions, and who decides the composition of the decision-making group?

6. We know that there are differences between developing and developed countries in **the relationships between class size, teacher education, salaries, and student achievement**.

Do such differences appear to have similar effects across nations, or are there other variables working that cause these relationships to differ from one country to another? While the data from such researches would be very

helpful to inform policy decisions, at this point there is very little we can say with certainty to help in policy formation. Within any one country, especially among the less developed countries, we know very little about the differential effects of particular educational experiences on different social groups. We also need qualitative studies of successful implementation and planning.

7. There are studies which indicate that students in industrialized countries spend a good deal of time with the **electronic media like television, computers, electronic games**, etc., but what are the **effects**? Does this fact make the students more technologically literate, more familiar with the world of technology, more willing to go on and explore technological innovations, or does it enslave students to the technology without educating them in basic skills and values so important tot the society? And as these technologies become more available in less developed countries, will the effects be similar there? How might the impact of technology be addressed and mediated through higher education curriculum, instructional materials and teaching methods?

8. The **use of technology in higher education** in relation to curricula, teaching methods, educational materials needs to be investigated. What are the effects, including the affective, cognitive, and psychomotor effects on students in developed and developing countries? For example, what do evaluation studies say about distance education, how effective is it, and how to improve it? More such evaluative studies may be needed in some countries, but many have been done and there is need for a meta-analysis of them.

IV - Student and Faculty Development and Evaluation

by John C. Weidman and Eugenie Potter, with the assistance of Diane Hyra and Alhamdou Tounkara, recorders. Based on working group discussions chaired by Kabiru Kinyanjui and John C. Weidman.

Issues across research themes

It was noted that there is a great deal of research on higher education, but most of it has been produced by and about developed countries. Careful consideration must be given to the appropriateness of research models and conceptual assumptions based on North American and West European higher education systems where conditions of faculty tenure, academic freedom, and finance may be quite different from those present in many developing nations. Hence, models for higher education research in developing countries need to examine the local environment for higher education, including political and economic conditions, demands for teaching and research, and quality of life in colleges and universities. Because researchers' aspirations and conditions of work vary greatly from country to country, models must be adapted to the local context and oriented toward providing knowledge that will increase self-reliance within developing countries. This is particularly difficult in countries where research must respond to indigenous needs with a minimum of resources available and often resistant political structures.

Second, given the wide variation in regional, national, and local social, economic, and political structures, international agencies are often perceived by developing countries to be the most neutral organizations in encouraging and facilitating research activity. In this situation, agendas incorporating otherwise controversial issues such as accountability, access, equity, and academic freedom can be presented by agencies such as UNESCO that will not be immediately dismissed as imperialistic. It was recognized that one of UNESCO's greatest assets is its ability to persuade and to encourage cooperation with other agencies, including the World Bank which has significantly greater resources to implement research agendas aimed at formulating educational policy.

Third, the group agreed that any higher education research should incorporate consideration of two general sets of issues:

1. Issues of equity in, opportunity for access to, and probability of succeeding in higher education among faculty, students, and staff, including specific attention to gender, social class, race/ethnicity, and urban/rural residence.

2. Issues related to differences among types of institutions in terms of mission, structure, type of control, finance, and governance.

Three themes

The group discussed possible topics for research on faculty and students from three general areas of higher education: nature of life and work; transition processes; and relationship to society. While many topics thought by group members to be important are listed, they are included with the assumption that researchers must ultimately set their own agendas based on indigenous needs.

1. Nature of life and work in higher education

Two fundamental questions for understanding what goes on in higher education are: **What are the conditions under which the work of faculty, staff, and students, is carried out? How are these conditions related to desired goals and outcomes of higher education?**

Research addressing these questions should include systematic **studies of the teaching and learning processes in higher education** (including language of instruction) aimed at understanding strengths and weaknesses of various instructional approaches. Research should be addressed toward understanding **ways for faculty to adapt to student learning styles and culture**. It should **analyze student life**, including patterns of financial support for basic student maintenance (books, food, housing, etc.), availability of social and psychological services, and access to faculty for assistance with academic work as well as career and other counseling.

There is a need for research designed to provide **improved understanding of faculty work**, including salary and reward structures, teaching load (hours of instruction as well as numbers of students taught), availability and use of facilities and resources (office and classroom space, instructional supplies, research, etc.), and staff support (secretarial, maintenance, etc.). Needed are studies of the **employment and career patterns of faculty**,

recruitment and hiring practices (including inbreeding, nepotism, etc.), special circumstances of junior faculty, civil service regulations, working styles, and collegiality. In such research, particular attention should be paid to differences by academic discipline and type of institution as well as the socio-political and economic environment of teaching and research.

Studies of faculty qualifications aimed at identifying systematic strengths and weaknesses in developing countries are important. Studies of faculty evaluation, assessment, and accountability that employ both quantitative and qualitative approaches are also needed. It was noted that such research should be built upon clear definitions of excellence and quality, including philosophical bases as well as ideal images.

The academic community is a truly international professional community in which there are always professors who are studying, doing research, and making presentations outside the borders of their own nations. Consequently, there is a need for **research on the ways in which international communities of researchers relate to one another**, including patterns of research collaboration. There is also a need for more research on the **experiences of international students**, including students from developing countries studying in other developing countries, "brain drain," and the adjustment of students returning to their own countries after earning degrees in developed countries. **The role of international organizations in furthering careers of professors** from developing countries should also be studied. It was pointed out that there are non-university institutions funded by international organizations in many countries that may attract the best faculty away from local universities to undertake policy research on agendas that are not always responsive to local issues, sometimes diverting funding away from universities and indigenous researchers. Some faculty may even see these organizations as providing opportunities for exiting their own countries.

2. Transition processes to and from higher education

Of concern here is **understanding the patterns of student entrance into higher education, their adaptation to institutional life (including dropout and completion), and their movement from higher education into the labor market.** With respect to student selection, the **use of national exams** to select from increasing numbers of applicants those students who will be admitted has placed significant pressures on higher education systems. This is especially problematic for

countries in which very small fractions of students taking the entrance exams will find places in higher education.

Adjustment to institutional life is difficult, especially when students are required to move long distances away from family to attend higher education. This is exacerbated when students move from rural to urban environments. Students may also vary considerably in the quality of their academic preparation for higher education, thereby making adaptation to rigorous academic demands very difficult.

With respect to transition to the labor market, it is important to gain clearer understanding of the processes involved. **Problems of lack of employment opportunities** were discussed as were problems of adjusting to the possibility that available jobs may be in rural areas of developing countries, rather than in the cities where graduates were educated. This requires a re-adjustment, even for those students who came originally from rural areas. There are also **wide variations in the role of government**, both in placement of graduates and in the use of higher education as an instrument of manpower policy. It was noted that a common indicator of institutional effectiveness is the employment success of graduates, but that economic conditions for graduates vary widely. Hence, **tracer studies** following graduates (and dropouts) for several years after leaving higher education can provide very useful information that is very different from conventional labor market analyses that do not show how individuals negotiate the employment system.

The goals of a university education encompass more than simply preparing people for jobs. Impacts such as **cultural enlightenment and moral transformation** should not be ignored. Tracer and follow-up studies can also provide information about the contribution of higher education to spheres of adult life other than the occupational.

3. Relationship of higher education to society

In addition to contributing ideas, innovation, and technological advancement, higher education can also be used as an instrument to further political and social agendas. **Research can contribute to a greater understanding of the complex relationships of higher education to society in comparative perspective, as well as within specific developing countries**. Analyses of causes and consequences of **student activism in higher education**, including linkages to labor unions, political parties, and other organizations in society would provide one approach to

understanding these issues. Of course, research on the **cost and financing of higher education** is essential because legislatures and parliaments in most countries have significant budgetary impact on institutions and national higher education systems. **Studies of alumni** should not overlook the possibility that they can be a potent force in building support for higher education among policy makers.

The group recognized that conducting research is also frequently construed as a political act. Changing world relations have increased resistance of developing countries to accepting models for research, policy making, and design of higher education systems offered or imposed by developed countries. Hence, it is important to conduct studies that contribute to **understanding of the socio-political character of research, including power relations among researchers, funders, policy makers, and other research-commissioning agencies**.

Need for a comparative research base

There is a strong need for a truly comparative research base on higher education, with common data elements and methods of data collection. One example, though based fundamentally on a North American research model, is a 13-country survey study of the professorate that is being undertaken by the Carnegie Foundation for the Advancement of Teaching. Similar survey studies might be undertaken of students, both undergraduate and graduate, to get profiles of entering students (e.g., Alexander Astin's annual survey of college freshmen in the U.S.A.) that includes information on such things as demographic characteristics, attitudes and values, career aspirations, course of study, etc. Maintaining a continuous program of periodic data collection would also facilitate trend analysis that could be compared across countries.

These kinds of cooperative research activities would flow from the kinds of implementation strategies discussed by this and the other two working groups which are summarized in Chapter V.

V - Implementation Strategies

by Seth Spaulding and Stanley Nyirenda. Includes recommendations made within the three working groups and the several plenary sessions.

After identifying higher education issues around which a research agenda could be built, the members of the Forum focused their attention on implementation strategies. Noted was the need to establish and/or strengthen appropriate higher education research infrastructures; the need for database services to collect, store, analyze and disseminate research information; and the need to establish and encourage networks of researchers and others interested in such research. The Forum noted the special need for encouragement of such implementation strategies in developing countries. This chapter will list the recommendations along with a brief explanation of each recommendation.

Needed research support at various levels

Five levels of research involvement were identified, each with a different set of actors, each with distinct, though often overlapping, ultimate purposes and goals. Although in many countries, there is interaction between the different levels (with those from each level working with those at other levels on research efforts), the intent of the research is usually distinct within each level. Attention to implementation strategies must be given priority at all five levels:

Intergovernmental

1. Intergovernmental organizations must recognize the importance of research on higher education and must provide appropriate infrastructures and budgets within their agencies to encourage and support such research.

Research on higher education undertaken or funded at this level is for the purpose of informing governments and researchers across national boundaries of issues and trends and which may be useful in establishing policy norms which facilitate communication between higher education systems. Examples include surveys and inventories of who is doing what to whom in research on higher education; studies of degree equivalencies in various countries; studies of curriculum structures in various national systems with a view to encouraging mobility of faculty and students between countries (as with the ERASMUS project within the European Community, designed to facilitate movement between universities); directories of study and funding opportunities

for students who wish to study abroad (as with UNESCO's impressive *Study Abroad* publication).

Governmental

2. Governmental ministries and departments must recognize the importance of research on higher education and must develop appropriate infrastructures and allocate sufficient funds to encourage and support such research.

Research done or commissioned by national or local government agencies is generally intended to clarify issues, inform decisions and/or to evaluate policies and practices. Examples include studies of access of students from various geographic regions and ethnic groups; tracer studies of students who graduate from higher education in order to see what they do with their education; financial studies of how much it costs per student within the various institutions and programs, and studies of how higher education might be funded differently; feasibility studies concerning new strategies such as distance education and whether or not there is need for additional institutions; assessment studies, to ascertain the quality of education being offered by higher education policy studies, often including political, business and academic leaders, in order to evaluate higher education trends and to suggest new directions, etc.

Educational institutions

3. Higher education institutions must recognize the importance of research on higher education and must provide appropriate infrastructures and budgets for such research; research universities must encourage faculty and student participation in such activity.

Most higher education institutions of any size must carry on various kinds of studies to provide appropriate information to governing bodies, administrators and faculty members to help them in making informed decisions. Some institutional research is done with the full cooperation and involvement of faculty and students; other kinds are often done without the participation of faculty and students, raising questions as to the respective roles of administrators and faculty members. One school of thought suggests that institutional research done without at least the concurrence if not the participation of faculty and students of faculty and students is inimical to the academic health of an institution. Institutional research is usually concerned with the quality, relevance, efficiency and finance of the institution. Based on such research, funds are often allocated or denied to programs and activities considered, on the basis of such studies, to be effective, relevant, high quality, or otherwise.

Often, planning models are developed which attempt to assess the relative significance and efficiency of various options, using various weighted criteria. Mechanistic models which are primarily concerned with financial efficiency may cause long-term qualitative deterioration in an institution; qualitative models, on the other hand, can create financial crises unless there is adequate financial modeling to keep track of the short and long-term cost implications of innovations, reforms and program development options.

Non-governmental

4. Non-governmental organizations and foundations should focus their interest in higher education on helping educational institutions and individuals develop capacities to undertake appropriate research on higher education, both within individual institutions and through collaborative relationships between institutions within a national, regional and international contexts.

Numerous foundations and professional associations fund or sponsor various kinds of studies relating to higher education. Some of these studies are meant to identify areas where funding is needed; others are meant to provide information for policy-making and are often intended to influence higher education reform. These kinds of studies can be done by staff of such organizations, but more often are contracted out to individuals or institutions qualified to undertake such studies.

Individuals

5. Academic disciplines and professional schools in universities should recognize research on higher education as a significant field of inquiry and should encourage those faculty members and students who express an interest in such research.

Research on higher education is often done by individual academics and students as part of their intellectual engagement in the higher education enterprise. In major research universities in developed nations, faculty members and students usually have the freedom to explore whatever issues and problems they wish, and to take whatever ideological position they wish. Such individually initiated research may be critical of current institutional or governmental policies; it may be oriented toward the advocacy of major reform; or it may simply be conclusion-oriented research without any immediate goal of reform. Examples of reform-oriented individual research include studies which show that women do not have the same chances for hiring and promotion in some institutions of higher education; studies which show that students from some

minority groups do not have the same opportunities for higher education as others; studies which question current forms of administration in some higher education institutions; studies which advocate faculty unions and other alternate forms of faculty participation in governance. Conclusion-oriented studies (which often provide information useful for policy making but which in themselves do not necessarily suggest policy) might include studies of student achievement by ethnic group or geographic region of origin; studies of comparative cost of graduates of different programs and of the income they generate when they leave the university; tracer studies of students who leave various academic programs, etc. Some of these kinds of studies are proposed by individual academic researchers and funded by institutions or governments because of the possible use of such studies in framing policies. In order for faculty members to be able to undertake such studies, however, the higher education institutions for which they work must recognize the legitimacy of such research and such institutions must recognize that research is an important part of a faculty member's responsibility. In essence, faculty members must have sufficient time to do research, and institutions which are serious about encouraging such research must provide various kinds of resources and facilities to encourage such engagement of its faculty.

Global inventories and interpretive studies

6. The UNESCO inventory on research on higher education, done some years ago, should be updated and published regularly.

In order to encourage research on higher education in either industrialized or developing nations, it is necessary first to know what already exists. In order to network institutions and people who are working on similar problems, information on who is doing what to whom in research on higher education is needed.

The inventory should include information on on-going and recent studies sponsored and/or funded by intergovernmental agencies, governmental ministries and offices, non-governmental organizations (including foundations) and higher education institutions, as well as research undertaken at the initiative of individual researchers. It should include information on the institutional base of each study and the people involved in the studies, with information on how to contact them. As this directory program progresses, it might be possible to do regional editions, perhaps through UNESCO's regional offices.

7. Successful research centers which operate at the several levels (intergovernmental, governmental, non-governmental

and university) and in differing national contexts should be identified and case studies of these centers and how they operate should be undertaken and the results disseminated.

Information about factors that seem to characterize their success be made known so that those intending to set up similar centers can, at least to some degree, learn from the experience of others. Elements to be examined in such cases might include the quality and quantity of research output, organization, level of resources, and the impact of the centers on higher education administration and policy-making. In addition, there should be an examination of how research done links with social, political and economic institutions in the country or region concerned.

Much research on higher education is done by university administrations (often as part of the budget-making process, sometimes within "institutional research" offices; occasionally as a part of the academic structure, as in "evaluation of teaching" offices, etc.) to help inform decision making and occasionally to help improve teaching, and to the extent possible such research should be made available to a wider audience. However, some research is also done by other organizations including governments for accountability purposes. It is important in any inventory to include research on higher education being done by any institution or group and not just by specialized centers and universities.

8. International agencies, foundations and centers doing research on higher education should fund or undertake higher education research literature reviews on specific topics.

Much research information already exists on higher education issues, but much of it has never been synthesized in a form which makes it readily accessible to other researchers and to policy makers. Agencies such as UNESCO and the International Development Research Center in Canada should consider funding research review series. These series should include an examination of research literature on higher education in less accessible languages. A preliminary step might be to survey governments, higher education institutions, and researchers on higher education to ask them for priority topics where they would like research reviews to be done. Results of these reviews of research should be published widely in languages most useful to policy makers, universities and researchers in developing countries.

9. One or more international agencies should create a higher education research network and service the network through a newsletter on issues and problems in higher education, and on research being done on these problems around the world.

Research on higher education will benefit from mechanisms to help network those interested in such research around the world. There is great need for a world newsletter on higher education research to help inform research centers and researchers of what is going on elsewhere, of what informational and other resources are available elsewhere, and to help researchers to network. UNESCO currently maintains a number of networks (amongst them, one for science educators, another for information and documentation specialists, a third for adult education, etc.) and it would seem logical for the Higher Education Division at UNESCO to initiate and support such a network through an informative newsletter and other activities.

The creation, care and feeding of researchers and research centers

10. Governments, institutions and funding agencies should give priority to the establishment of identifiable centers and related resources (library and reference materials, etc.) for research on higher education.

Although much valuable research can be done by university faculty within existing departments, especially if networking of faculty between departments and institutions is encouraged, additional resources are needed to set up centers which have a full-time vocation for doing research and studies, especially in developing countries. For centers to have a significant impact, whether they be concerned with institutional planning issues, faculty and student issues, or issues concerning the interface between the university and society, they need to have a physical presence and this usually means staff and physical facilities. There also needs to be logistic support, such as a library stacked with up-to-date journals and other materials. The question is how can these resources be most effectively mobilized? National governments might consider supporting research on higher education that is relevant to local and national needs. It was noted, however, that if research is intended to inform policy decisions, it must be of high quality and it must be placed visibly high in the university and/or institutional hierarchy within the bureaucracy in countries where such research centers outside the university are the norm.

11. Funding agencies interested in helping build higher education capacities in developing countries should include local researchers in any sector and other research studies undertaken and should finance training programs for young researchers interested in research on higher education.

In developing countries, sector studies, institution-building and evaluative research are often supported by funding agencies and donor groups and undertaken entirely by non-national consultants and staff. Nationals

competent in the areas concerned should be incorporated into such study teams. This, in itself, will provide useful training and experience for national specialists. In addition, of course, more formal training of researchers is needed. Some of this training can be funded within higher education technical cooperation projects and loans for the development of higher education.

12. Researchers and research centers in industrialized countries which have comparative and international interests should network with researchers in developing countries and help build research capacities in nations where they undertake or wish to undertake studies on higher education.

Institutions of higher education in industrialized countries can do much to facilitate capacity building for research on higher education in developing countries through the training of researchers and through collaborative research with institutions and faculty members in developing countries. When researchers from industrialized countries undertake collaborative research with those in developing countries, they should also, as part of the collaborative effort, transfer resources (reference material, computers and other equipment, etc.) to their partners in developing countries so as to help build research capacities there.

13. The creation of national and/or regional scholarly journals on research on higher education should be fostered by international agencies, governments and higher education institutions.

Researchers in developing countries often feel that it is prestigious to do research of interest to internationally distributed journals based in industrialized countries. National and regional journals dealing with higher education often do not exist. Such journals should be strengthened where they exist and created where they do not. Such journals will be an additional incentive for researchers to undertake research of relevance to the nation and the region.

14. Governments and universities should collaborate in encouraging dialogue between researchers, policy-makers and practitioners.

Such dialogue can be encouraged through cooperative research councils, through informative meetings called by government policy-makers, university administrators, institutional research offices, and academic departments with higher education research interests. Too often, policy and planning offices in ministries of education do not communicate their research findings and data to educators in the field, and often institutional research offices in universities do not share their data with faculty in the various academic departments.

Such sharing increases the chances of appropriate use of research information and increases the interest in collaborative research among the various interested parties.

Such collaboration should include working groups to plan and conceptualize research on higher education at all levels, to develop theoretical constructs, and to examine alternative methodologies. Collaboration in the conduct of the projects can lead to thoughtful critiques of the results and alternative interpretations of the data. All of this contributes to developing institutional and human capacity to conduct research and to glean intelligent policy options from the results of such research.

15. Individual researchers in academic and professional university departments should be encouraged to undertake research on higher education, even in universities with little in the way of institutionalized research facilities.

Although Forum participants recognized the need for institutionalized research centers if a continuing effort in research on higher education is to be mounted, there should not be reliance on top-heavy infrastructures for research to happen. Even in institutions with little or no infrastructure to support research on higher education, individual researchers should be encouraged to do studies which are feasible with the resources available. Funding agencies can assist by making resources available to such individual researchers, perhaps through regional programs such as UNESCO's Asian Program of Educational Innovation and Development and the International Development Research Center's educational research information networks in Africa, Latin America and Asia.

Databases and information centers

There is much research information available about all the issues discussed in this report, but most of it is relatively inaccessible in any organized form to institutions or individuals, especially in developing countries. The Forum felt that support of databases and information systems dealing with research on higher education must be a priority at all levels if such research is to be cumulative, leading to increasing knowledge useful in making higher education decisions. The Forum's recommendations on these matters are as follows:

16. An international inventory of databases and information systems that handle research material on higher education should be carried out, parallel to the survey of research and research institutions (see Recommendation 6, above).

Large database systems such as the ERIC system in the United States, with 16 clearinghouses (one of which handles higher education exclusively) and a budget of $6 million per annum, and the planned expansion of the International Association of Universities system will continue to play an important role on disseminating research on higher education. At the same time, European educational information systems deal, in part, with higher education issues. The educational documentation center of the Council of Europe in Strasbourg often deals with higher education issues; the European Community headquartered in Brussels maintains an educational documentation service; a number of European countries (Nordic countries through Nordic Council for Scientific Information and Research Libraries; England, France, Germany, Poland, Czechoslovakia, etc.). There is no one reference, however, which indicates to what degree the various databases cover higher education research, detailing how these studies are categorized and handled in the database, and indicating how individual researchers and research centers can access the databases.

Various services of international agencies have a role to play in networking of information. UNESCO headquarters maintains a computerized educational documentation center; UNESCO's International Bureau of Education in Geneva maintains a documentation center and an International Network for Educational Documentation (INED) which assists some 100 national centers worldwide in networking their resources. UNESCO's Regional Center for Higher Education in Bucharest its Regional Office for Higher Education in Latin America and the Caribbean each have documentation centers. Regional organizations such as the Arab Bureau of Education for the Gulf States, the Organization of American States and others have documentation resources of one kind or another. All need to be inventoried and included in one directory to be available to higher education researchers and research centers.

17. Existing documentation centers which include information on higher education should be encouraged to network among themselves, looking toward possible future electronic linkages and other cooperative activities.

Rarely do various documentation efforts at international, national, regional or local levels attempt to coordinate their efforts. Each center generally has its own clientele and often its own classification and operating system and thesaurus. Although a number of UN and national centers have adopted UNESCO's CDS/ISIS database system and some national centers use the UNESCO/IBE Thesaurus, many do not. This is not necessarily bad, but questions of how to share data and how to coordinate services need to be discussed.

Many of the large data bases are country or region specific. Even ERIC, probably the largest system in existence, focuses mainly on the United

States, though it does not exclude material on other countries. In addition, there is a language limitation with all systems. The language medium in which they are maintained does not permit multiple translations so that a large part of the population whose language is different from that of the database is excluded. Some systems, such as ERIC and the International Bureau of Education's IBEDOC, accept manuscripts in other languages. Perhaps what is needed in an international database is an index or thesaurus in several languages so that anyone in using those languages can search for proper/relevant articles.

These and many other problems urgently need to be addressed by the various systems currently operating. International agencies and funding groups should not only encourage development of new systems (as recommended below), but should encourage collaborative thinking among existing systems. Indeed, new systems can best be planned if the experience of the existing systems is clearly documented through various kinds of group activity involving the existing centers. Although the International Bureau of Education has, in the past, organized meetings to attempt to move toward cooperation among such services, these efforts have been poorly funded and have not developed into a the kind of major program which is needed.

18. Efforts to establish national and regional clearinghouses and databases, more responsive to the needs of developing countries, should be intensified.

Examples of regional information systems such as the Latin American Network for Documentation in Education (REDUC) and its parallels in Africa and Asia, and that of UNESCO's Regional Office for Higher Education in Latin America and the Caribbean (CRESALC), should be studied for possible adoption elsewhere. The Forum noted that ERIC was willing to advise on the establishment of new databases and, at the same time, expressed concern that small national and regional databases may run the risk of being in competition with the large ones unless safeguards are taken to protect them from being "swallowed" up. The Forum felt that there should, ultimately, be a clearinghouse and database on higher education in each country and, until that is possible, at least in regions serving several countries. It was cautioned that the notion of Clearinghouse consisted more than a simple database. It includes the notion of vigorous collection of information, the establishment of appropriate systems for the storage and manipulation of information, the analysis of information with trend reports being published regularly on topics of interest to the local and regional clientele, and the development of access systems so that the largest number of interested people can use the information as they wish.

19. An evaluative international inventory of management information systems within institutions of higher education should be undertaken.

Although the Forum focused a great deal of attention on research and educational information systems, it was also noted that many management information systems (MIS) exist for developing data useful in program planning and administration, and these often collect and manipulate significant institutional data. These data may include information on student flow patterns, on per-capita cost of various instructional programs, on student achievement by background or ethnic group, on background of faculty members and their work loads. Planning and financial simulation models may have been developed by such offices in various institutions. These systems are especially important in institutional research, so that data can be controlled and analyzed when projecting facilities and staffing needed. Often, data exist in such systems which are extremely valuable to researchers on higher education who are not part of the management information systems. An international evaluative inventory might be an appropriate project for UNESCO or the International Association of Universities to undertake. Such a study would be expected to compare how such management information systems operate on different campuses in various countries; outline how they are structured within the institutions they serve; describe how they are staffed and budgeted; inventory the kinds of studies they do and the kinds of data that are available; and offer suggestions, based on information collected, as to what effective management information systems look like.

20. Libraries and clearinghouses on higher education research in developing countries must be assisted in their acquisition of reference materials, books, journals and other hard copy materials.

When information needed by researchers is considered, there is often a tendency to think solely about computer hard and software. Journals and books, research reports and other hard copy materials, however, are important information resources which often do not exist in quantity in developing countries. A special effort should be made by international organizations and funding agencies to provide such materials to institutions of higher education and clearinghouses in developing countries interested in research on higher education.

Networking

There should be networking between researchers from the "north" with those in the "south" and between those in the "south" and others in the

"south." But networking must not stop at that level. There should be networking nationally, regionally, and even at the local, institutional level.Networking is a means both for developing expertise and and for establishing linkage between researchers and policy makers. The Forum made several recommendations concerning such networking:

21. An inventory should be done of networking resources currently available in each country, region and worldwide. This should result in a directory of networking resources which will be of help to governments, higher education institutions and faculty members who wish to be a part of such networks.

This recommendation is complementary to recommendations 6 and 16, above, which call for inventories of research and research institutions in the field, and of databases and information systems which serve the field. In addition to those inventories, however, institutions and faculty members need comprehensive information, renewed from time to time, on resources that can be used for networking between institutions and faculty, between researchers who wish to communicate with each other easily and quickly, and between policy-makers who wish to find out from others like them what is happening in their institutions. What national, regional and international professional organizations exist which help network those interested in research on higher education/ What electronic systems (BITNET in the U.S.A., EARN and others in Europe, etc.), newsletters and the like exist which facilitate such communication and how can institutions and individuals gain access top them?

23. Academics from developing countries who are interested in research on higher education should be encouraged to participate in regional and world meetings which deal with these issues.

The role of professional associations in establishing meaningful professional contacts and opportunities for interacting with others with similar interests cannot be overemphasized. Such contacts not only support the professional growth of those involved, but also the development of a relatively new field of study such as higher education. Researchers from developing countries, however, often have difficulty in finding travel funds to attend regional and world professional meetings. International organizations and funding agencies should make special effort to assist researchers from developing countries in attending such meetings. Professional meetings which attract an international clientele such as the World Congress of Comparative Education (organized every two or three years by the World Council of Comparative Education Societies), the various national and regional comparative education societies, and some of the larger national research associations, provide a basis

for viable cross-cultural professional contacts and opportunities for researchers on higher education.

24. Professional and scholarly associations dealing with higher education should be encouraged and strengthened and, when they do not exist at the national and regional level, created.

Each country might consider establishing and supporting an association for higher education professionals, if one does not already exist. If this is not feasible, most countries have scholarly and professional education societies and associations, and these could include special interest groups on higher education. Regional societies such as the Association for African Universities (AAU) can be established, if they do not already exist. The International Association of Universities (IAU) has done a remarkable job internationally over the years of stimulating the networking of professionals and researchers in higher education, and its work should be encouraged and strengthened. In fact, many of the activities recommended by the Forum could well be spearheaded by organizations such as the IAU and the AAU .

Information on available funding

25. An international agency or a foundation should publish and widely disseminate in developing countries a directory of institutions which have funds and/or other resources which might be available to institutions and researchers in developing countries wishing to establish research on higher education programs.

Only the major institutions and the small group of travelled researchers from developing countries who appear at every international meeting seem to know where the funding might be for programs and projects dealing with research on higher education. The vast majority of faculty members and university departments which might become interested in such research may have no idea where to turn for help of any sort. If we speak of grass roots research involvement, we must find ways of encouraging researchers at the grass roots. Such directories might help put them in touch with proper organizations which can be of assistance. Many such organizations are seeking to encourage others than the usual, well-known centers, and such a directory would be of service to them in finding deserving new academic recipients for their help.

Concluding remarks

All nations are currently concerned with the quality, relevance and efficiency of higher education institutions. These concerns and the issues surrounding them can not be fully understood without continuous research on higher education.

Such research must include attention to the internal processes of the higher education institutions; it must also focus on the interface between higher education and society.

Building the infrastructures needed to encourage and sustain such research, and to foster the accumulation, analysis, dissemination and use of relevant research findings, will require continuous and systematic action by all involved in the higher education enterprise at national, regional and international levels.

Annex I - List of Participants

1. Abdul A. Al-Rubaiy,
   University of Akron, College of Education,
   210 Zook Hall, Akron, OH 44325.
   Tel: (216) 375-6953

2. Philip G. Altbach,
   Director and Professor,
   Comparative Education Center, State University of New York at Buffalo, 428 Christopher Baldy Hall, Buffalo, New York 14260 USA.
   Tel: (716) 636-2487; Home: 834-7406; FAX: (716) 636-2479

3. Nicolás Barros-Mani,
   University of Simón Bolivar, Caracas, Venezuela;
   1990-1991, Visiting Fulbright Scholar, Department of History, Saint Vincent College, Latrobe, PA 15650 USA
   Tel: (412) 539-9761 ext 317

4. Rosa C. Briceño,
   Colombia, Currently at MUISCA Education Research,
   210 S. Fourth Ave., Highland Park, NJ 08904 USA
   Tel: (908) 819-9408

5. Montgomery Broaded,
   Department of Sociology,
   University of Pittsburgh, 4E27 Forbes Quadrangle,
   Pittsburgh Pa. 15260 USA
   Tel: (412) 648-7426; Fax: (412) 648-5911

6. Dennis Brutus,
   Chairman, Department of Black Community Education,
   Research and Development, University of Pittsburgh, 3T Forbes Quadrangle, Pittsburgh Pa. 15260 USA
   Tel: (412) 648-7540; Fax: (412) 648-7214
   Bitnet: BRUTUS@VMS.CIS.PITT.EDU

7. Glaura Vásquez de Miranda,
   Professor, Faculty of Education,
   Universidade de Federal de Minas Gerais, Av. Antonio Carlos, 6627,
   Bello Horizonte-MG, Brasil
   Tel: 441-5022-443-5331; Home: 225-2490

8. Helmut de Rudder,
Professor of Sociology and Director,
Institut für Hochschulforschung, Universität Luneburg
Wilschenbrucher Weg 84, D-W 2120 Luneburg, Germany
Tel: 011-49-4131-714-291; Home: 011-49-4131-42153
Fax: 011-49-4131-714-428

9. Joseph Di Bona,
Associate Professor, Program in Education,
Duke University, Durham, NC 27708 USA
Tel: (919) 684-3924; Home: (919) 684-3924

10. Martial Dembélé,
Ecole Nationale d'Administration et de Magistrature,
Burkina Faso; Currently Graduate Student, University of Pittsburgh,
3401 Forbes Ave. #B3, Pittsburgh Pa. 15213 USA
Tel: (412) 683-9388

11. Nagat El-Sanabary,
Middle East Education Consulting Services,
131 Norwood St., Kensington, CA 94707 USA
Tel: (415) 527-4773

12. Jonathan Fife,
Director, ERIC Clearinghouse on Higher Education,
One Dupont Circle, Suite 630, Washington D.C. 20036-1183 USA
Tel: (202) 296-2597; Fax: (202) 296-8379
Bitnet: ERICHE@GWUVM

13. Kassie Freeman,
Director of Planning, Spelman College,
350 Spelman Lane, S.W., Atlanta, GA 30314 USA
Tel: (404) 223-1437; Home: (404) 624-3144
Fax: (404) 223-1428

14. Albertha Graham,
Graduate Student, University of Pittsburgh,
1207 Buena Vista St., Pittsburgh Pa. 15212 USA
Tel: (412) 231-1821

15. Yvon Grenier,
Visiting Scholar, Center for Latin American Studies,
4E04 Forbes Quad., University of Pittsburgh, Pittsburgh, PA 15260 USA
Tel: (412) 648-7392; Home: (412) 621-8556

16. J. Eugene Haas,
Senior Fellow, Carnegie Foundation for the Advancement of Teaching,
5 Ivy Lane, Princeton NJ 08540 USA
Tel: (609) 452-1780; Home: (609) 896-8087
Fax: (609) 520-1712

17. Richard Hogeboom,
Researcher, Higher Education and Scientific Change, Stanford
University, SIDEC, School of Education, Stanford, CA 94305 USA
Tel: (415) 723-4644; Home: (415) 497-4028

18. Philip K.F. Hui,
Lecturer, School of Education, University of East Asia, P.O. Box 3001,
Macau (via Hong Kong); currently Graduate Student, 468 Baldy Hall,
EOAP, GSE, SUNY Buffalo, Buffalo N.Y. 14260 USA
Tel: (716) 636-7241; Home: (716) 636-4308
Fax: (716) 636-4308; Bitnet: C999RSXF@VBVM

19. Diane Hyra,
Graduate Student, University of Pittsburgh, 3285 Kennett Sq.,
Pittsburgh Pa. 15213 USA
Tel: (412) 687-0538

20. Yaacov Iram,
Chair, Department of Educational Studies, Bar Ilan University,
Ramat Gan, Israel
Tel: 972 `-53184444; Home: 972-4-244518
Fax: 972-3-344622; Telex: 36131 BARIL IL

21. Bruce Jones,
Assistant Professor, Department of Administrative and
Policy Studies, School of Education, University of Pittsburgh,
5S36 Forbes Quadrangle, Pittsburgh Pa. 15260 USA
Tel: (412) 648-7041

22. Kabiru Kinyanjui,
Senior Programme Officer, Social Science Division, International
Development Research Center, P.O. Box 62084, Nairobi, Kenya
Tel: 254-2-330850; Home: 254-2-725361; Telex: Nairobi 23061

23. Makan Konate,
Ministère Éducation Nationale, Bamako, Mali; currently Graduate
Student, University of Pittsburgh, 3412 Iowa St.,
Pittsburgh Pa. 15219 USA
Tel: (412) 681-3600

24. Colin Lacey,
Professor, Center for International Education,
University of Sussex, Falmer, Brighton BN1 9RG, England
Tel: 0273-606755 ext 2502; Fax: 0273-678466

25. Glenn Nelson,
Associate Professor, Department of Administrative and
Policy Studies, School of Education, University of Pittsburgh,
5S30 Forbes Quadrangle, Pittsburgh Pa. 15260 USA
Tel: (412) 648-7106; Home: (412) 367-2480; Fax: (412) 648-5911

26. Nicholai D. Nikandrov,
Chief Technical Secretary, USSR Academy of Pedagogical Sciences,
119905, Moscow, 8 Pogodinskaya St., USSR
Tel: 245-21-10; Home: 157-40-69; Fax: (095) 246-85-95

27. José Alirio Ortiz,
Instituto Colombiano para el Fomento de Educacion Superior,
Apartado Aéreo 6319, Bogotá, Colombia
Fax: 2868045-Bogotá-Colombia

28. Louis H. Orzack,
Adjunct Scholar, Rutgers University,
P.O. Box 457, New Town Branch, Boston, MA 02258 U S A
Tel: (617) 969-9468

29. Namgi Park,
Research Institute of Higher Education in Korea;
currently Graduate Student, University of Pittsburgh,
4531 Forbes Ave. # 202, Pittsburgh Pa. 15213 USA
Tel: 687-4560

30. Eugenie Potter,
Assistant Professor, Department of Administrative and
Policy Studies, School of Education, University of Pittsburgh,
Pittsburgh Pa. 15260 USA
Tel: (412) 648-2798; Home: (412) 788-1918
Bitnet/Internet: EPOTTER@PITTVMS

31. Agedew Redie,
Office of the State Committee for Foreign Economic Relations,
Addis Ababa, Ethiopia
Tel: 510033; Home: 71-20-90; Fax: 00251-1-517988
Telex: 21-368-OSCFER ET

32. Paula Sabloff,
Lecturer, Department of Anthropology, University of Pittsburgh,
3H01 Forbes Quadrangle, Pittsburgh, Pa. 15260 USA
Tel: (412) 648-7524; Home: (412) 421-0133
Fax: (412) 648-7535; Bitnet: PLS@PITTVMS

33. Richard Sack,
Educational Policy Analyst, 10, rue Herold, 75001 Paris, France
Tel: (33.1) 4568-2092; Home: (33.1) 4508-9149;
Fax: (33.1) 4734-7637

34. Jan Sadlak,
Higher Education Group, Ontario Institute of Studies in Education,
252 Bloor Street West, Toronto, Ontario M5S 1V6, Canada
Fax: (416) 926-4725; Tel: (416) 923-6641

35. Vilma Seeberg,
Assistant Professor, College and Graduate School of Education,
Research Center, Kent State University, EPLS 405 White Hall, KSU,
Kent, OH 44242 USA
Tel: 216-672-2294; Home: (216) 752 8610
FAX: 216-672-3704; Bitnet: VSEEBERG@KENTVM

36. G. D. Sharma,
Professor, Head of Higher Education Research Unit,
National Institute for Educational Planning and Administration,
17B Azavinda Marg, New Delhi 1100016, India
Tel: 660021; Home: 655741

37. John Smyth,
Deakin University, Victoria 3217, Australia
Tel: 052-471486; Home: 052 0 437736; Fax: 61-52-472-014

38. Heidi Streetman,
Graduate Student, University of Pittsburgh
375 McKee Pl. # 9, Pittsburgh, Pa. 15213 USA
Tel: (412) 621-1558

39. Alhamdou Tounkara,
Ministère Éducation Nationale, Bamako, Mali; currently Graduate
Student, University of Pittsburgh, 272 N Dithridge St.,
Pittsburgh Pa. 15213 USA
Tel: (412) 648-1174

40. Hoa Phuong Tran,
Project Coordinator, Ministry of Higher Education, Vietnam; currently Graduate Student, Comparative Education Center,
Graduate School of Education, SUNY at Buffalo, New York 14260 USA
Tel: (716) 636-2487; Home: (716) 833-0743; Fax: (716) 636-2479

41. Xu Yu,
Institute of Higher Education, Xiamen University Fujian,
Peoples Republic of China; currently Graduate Student, Comparative Education Center, Graduate School of Education, SUNY at Buffalo,
Buffalo, New York 14260 USA
Tel: (716) 636-2487; Fax: (716) 636-2479

42. Joseph Zajda,
Sociology Coordinator, Australian Catholic University,
Aquinas Campus, 1200 Mair Street, Ballarat, Victoria, Australia
Tel: 653-373100; Home: 613-696-5545
FAX: 613- 699-2040; Electronic mail: (53) 373105

43. Yenming Zhang,
Henan Teachers' University, China; currently at Office of International Education, Harvard University, Read House,
Graduate School of Education, Cambridge MA 02138 USA

Forum of Experts Coordinators

Seth Spaulding (Chair),
Professor, Administrative and Policy Studies,
School of Education, 5S38 Forbes Quadrangle, University of Pittsburgh,
Pittsburgh, Pa. 15260, USA
Tel: (412) 648-7113; Fax: (412) 648-5911; Bitnet: SETHS@PITTVMS

James Mauch,
Professor, Administrative and Policy Studies, School of Education,
University of Pittsburgh, 5S34 Forbes Quadrangle,
Pittsburgh, Pa. 15260, USA
Tel: (412) 648-7104; Fax: (412) 648-5911

John Weidman,
Professor and Chair, Department of Administrative and
Policy Studies, School of Education, University of Pittsburgh,
Pittsburgh, Pa. 15260 USA
Tel: (412) 648-81772; Fax: (412) 648-5911; Bitnet:
Weidman@PITTVMS

Mark Ginsburg,
Professor, Administrative and Policy Studies and
Director, Institute for International Studies in Education,
University of Pittsburgh, Pittsburgh Pa. 15260, USA
Tel: (412) 648-1783; Fax: (412) 648-5911

Forum of Experts Staff

Arrangements Officer:
Susan Cooper,
University of Liberia; currently, Doctoral Candidate,
Administrative and Policy Studies, School of Education and Center for International Studies in Education, University of Pittsburgh, Pittsburgh, Pa. 15260 USA
Tel: (412) 648-1783; FAX: (412) 648-5911

Reports Officer
Stanley Nyirenda,
University of Malawi; currently, Doctoral Candidate, Administrative and Policy Studies, School of Education,
University of Pittsburgh, Pittsburgh, Pa. 15260 USA
Tel.: (412) 648-1763

UNESCO Representative

Dimitri Beridze,
Programme Specialist, Division of Higher Education,
UNESCO, 7, Place de Fontenoy, 75700 Paris, FRANCE
Tel: (33.1) 45.68.09.87; Fax: 45.67.16.90

Annex II - Agenda and Work Plan

The purpose of the Forum is to review trends in research on higher education and to identify priorities for future research. In addition, the meeting will be expected to suggest institutional, inter-institutional, regional and international processes and mechanisms appropriate for the encouragement of research on higher education, with emphasis on developing countries.

Noting that universities operate within differing socio-economic and political contexts, priority research issues and modes of institutionalizing to encourage such research may differ among countries. Accordingly, the agenda is considered suggestive, and Forum participants should feel free to deal with issues other than those listed here. The major purpose of the Forum is to inform policy-makers of possible research priorities as seen by the Forum and to suggest ways of encouraging research in these priority areas.

The heart of the forum will be the smaller working groups which will concentrate on specific areas. These groups will return to plenary where reports will be presented and adopted. All thematic working groups should consider ways of encouraging and supporting research in areas suggested.

The agenda and work plan are as follows:

Sunday, March 17.

2-3:15 P.M. - Room 2M and P, Second floor, Forbes Quadrangle: **Opening Plenary**, Agedew Redie and Seth Spaulding, Chairs. Greetings from Tom McKechnie, University Center for International Studies; Ken Metz, Dean, School of Education; Mark Ginsburg, Director, Center for International Studies in Education; Dimitri Beridze, Higher Education Division, UNESCO, Paris. Recorder: Stanley Nyirenda

3:15-6:30 P.M. - **Working groups:**

Working Group 1 - **Policy, Administration and Management, Governance Systems,** G. D. Sharma and Paula Sabloff, Chairs; Glenn Nelson, Rapporteur. Topics to include current and needed research on democratization; language policy; access policies; resource allocation; contribution to national development; enrollment planning; planning and resource allocation in a period of declining resources, ways of recovering costs, ways of changing structures to meet changing needs, etc. Recorders: Makan Konate, Stanley Nyirenda.

Working Group 2 - **Curriculum, Teaching Methods, Educational Materials and Technologies,** Jan Sadlak and James Mauch, Chairs. Rapporteurs, Bruce Jones, Nicolás Barros-Mani. Topics may include relating curriculum to community and national needs, effective and continuous program evaluation, ways of assessing impact of curriculum (tracer studies, etc.), etc. Recorders, Martial Dembélé, Heidi Streetman.

Working Group 3 - **Student and Faculty Development and Evaluation,** Kabiru Kinyanjui and John Weidman, Chairs. Rapporteur, Eugenie Potter. Topics to include current and needed research in evaluating students and faculty, ways of improving performance of students and ways of improving faculty teaching, ways of attracting new clientele to the university, ways of involving adults and others in the work of the university and its research agenda. Recorders: Diane Hyra and Alhamdou Tounkara

6:30 P.M. - Reception

Chairs, Rapporteurs and Recorders of each Working Group are requested to meet for a few minutes after the reception to discuss the content of presentations to be made at the Plenary on Monday morning.

Monday, March 18.

9:00 - 10 A.M. - **Plenary**, Glaura Vásquez de Miranda and John Weidman, Chairs. Rapporteur, James Mauch. Ten minute presentations by each working group of major findings so far. Discussion by plenary of findings. Recorders, Martial Dembélé, Makan Konate.

10:00 A.M. - 12:15 P.M. **Working Groups** continue discussions and prepare final recommendations. (Note: Albertha Graham will replace Heidi Streetman as Recorder in Group 2.)

12:15 A.M.-1:15P.M. - **Luncheon** (provided in meeting room).

1:15 - 3:15 P.M. - **Plenary,** Helmut de Rudder and Eugenie Potter, Chairs. Rapporteur, John Weidman. Presentation of final reports and recommendations from each working group. Recorders: Diane Hyra and Alhamdou Tounkara.

3:15 - 7 P.M. - **Working Groups:**

Working Group 1 - **Institutional Infrastructures Existing and Needed** within universities, between universities in individual countries, between countries in a region, globally. Discussion of how existing

centers for research on higher education operate will lead to recommendations on how to encourage creation of additional centers and how to strengthen existing centers.

Working Group 2 - **Current and Needed Database and Information Services** within institutions, between institutions, within national, regional and international governmental and non-governmental organizations. Examples of existing services include databases managed by the International Association of Universities, UNESCO and UNESCO's International Bureau of Education, the European Center for Higher Education, the Council of Europe, the European Community, ERIC (USA), etc. What additional resources and improvements in existing services are needed?

Working Group 3 - **Existing and Needed Networking of Faculty and Researchers through Regional and International Organizations, Research Centers and Universities.** The working group will examine how existing networking is encouraged (or discouraged) and make recommendations as to how to facilitate such networking in the future.

7 P.M. - **Dinner** (provided in meeting room).

Chairs, Rapporteurs and Recorders of each Working Group are requested to meet for a few minutes after the dinner to discuss the content of presentations to be made at the Plenary on Tuesday morning. Especially important will be the recommendations to be presented to the Plenary for adoption. These recommendations should be written to facilitate their consideration by the Plenary.

Tuesday, March 19.

9:00 A.M. - 1 P.M. **Closing Plenary.** Final recommendations presented and adopted. Chairs: Nicholas D. Nikandrov, Seth Spaulding and James Mauch. Rapporteurs: John Weidman and Paula Sabloff. Recorders: All.

Annex III - Abstracts of the Background and Position Papers

by Eugenie Potter, University of Pittsburgh

The following abstracts summarize papers used by Forum participants in their discussions of research issues. The background papers provided the experts information about the purpose of the Forum (Beridze), as well as a sense of the research that has already been done on higher education in an international context (Cowen, Ewell, UNESCO). The position papers were prepared in advance by invited participants and were used as an integral part of the discussions from which specific recommendations emerged. Although a few of the papers address broad issues related to higher education (Altbach, Lacey, Ortiz, Orzack, Smyth), most describe conditions in specific geographic areas (Barros-Mani, Briceño, Freeman, Hoa, Kinyanjui, Lianqing and Hongming, Nikandrov, Redie, Sadlak, Schaefer, Sharma, Xu, Zajda).

The Cowen, Ewell, and UNESCO background papers are extracts from the published literature and are available, therefore, according to the source cited. The position papers, on the other hand, were prepared as working drafts for use in the forum. They may be available in the future as finished articles in professional journals, or, in some cases, in draft form directly from the authors whose addresses appear in Annex I. The abstracts below represent only the content of the forum drafts. Future publications based on these drafts may differ significantly in light of knowledge gained at the forum.

Background Papers

Beridze, Dimitri. (1991) *Opening Speech to the UNESCO-University of Pittsburgh Forum of Experts on Research on Higher Education*

UNESCO, as a specialized organization of the United Nations, is "a unique structure of intellectual cooperation on a world wide scale," but one that is hampered in its efforts by the absence of the United States and the United Kingdom during the last five or six years. Nonetheless, UNESCO's Centre for Higher Education in Europe (CEPES) attempts to provide linkages through its journal *Higher Education in Europe*, by engaging British and American scholars in research programs, and by sponsoring meetings and conferences. Recent political developments in Europe, as well as the Gulf crisis, have major implications for higher education, including the development of new institutional structures, academic mobility for both faculty and students, and higher education

financing. The purpose of this forum is "to explore strategies, mechanisms and services needed to encourage research on higher education... [and to] produce some concrete suggestions and recommendations to UNESCO to serve as guidelines in our future work."

UNESCO. (1986) *Inventory of Educational Research on Higher Education Problems Undertaken by Higher Education Institutions.* Papers on Higher Education #18, Doc. ED-86/WS/122 Rev.

This is a summary of responses by nearly 200 institutions and organizations in 62 countries to a UNESCO questionnaire, "Research on Higher Education Problems Undertaken by Higher Education Institutions." The questionnaire covered 13 questions in seven areas: 1) title of project; 2) commencement and termination of project; 3) personnel; 4) project description; 5) financing; 6) methods and techniques; 7) application and evaluation. The results of the survey show that research on higher education is a recent phenomenon, begun in the United States of America about 20 years ago, but receiving increasing attention during the last decade, especially in western Europe. The inventory covers approximately 880 research projects focusing principally on research undertaken by universities to study themselves, research at the national and sub-national level (e.g., teaching systems, labor markets, societal relations), and research of international scope, often dealing with higher education in developing countries.

Cowen, Robert. (1987) *International Research on Higher Education.* Introduction from *International Directory of Research Institutions on Higher Education* (2nd Revised Edition). UNESCO: European Centre for Higher Education, Bucharest.

This essay poses a number of questions concerning international research on higher education, including the issues of what is meant by international research, what intellectual communities and networks are to be supported, and what social meanings and context are embedded in the idea of international research. The author notes that there are "international coincidences"--common themes in research done in many countries--that are transformed into truly international research by the purposeful behavior of the researchers in being aware of research elsewhere and in creating networks to share information about projects. These linkages include "people and publications, institutions and money, meetings and conferences," but are as yet "delicate and tentative--and unresearched" at the international level. This contrasts with the fact of national and regional research on particular themes defined by funding mechanisms, such as foundations and governments. The result is that "higher education research tends to respond to the external world rather than to a quasi-disciplinary research agenda; to deal with national problems which are highly visible and publicly debated; and to be pragmatic, problem and policy-oriented ... [responses] to crisis conditions" (ix).

Ewell, Peter. (1991) *To Capture the Ineffable: New Forms of Assessment in Higher Education*. Reprinted from *Review of Research in Education* (Gerald Grant, Editor), American Educational Research Association.

Assessment in higher education is inextricably linked to reform, both through its emphasis on academic improvement and its response to external pressure for accountability. Contemporary assessment in the U.S. grows out of inquiries in the early 1980s into the state of education from the elementary to the undergraduate levels. These inquiries focused on students' basic skills deficiencies, student involvement in learning, performance feedback, and curricular content and structure, all with the aim of reformative intervention. Researchers developed new technologies in test making, new models of learning and development, and more complex theories that demand multimethod approaches accounting for not only quantitative test outcomes, but also qualitative classroom and institutional environments. In consequence of this greater complexity and richness, interpreting the results of assessment has become more problematic and potentially leads to errors in high-stakes decisions, such as denial of funding. This is particularly true when assessments designed for one purpose are used for another. Researchers are beginning to call for attention to the need to consider the consequences of assessment interpretation and to reinvest assessment with its original purpose and values: the understanding and improvement of collegiate learning.

Position Papers

Altbach, Philip G. *A Comparative Agenda for Research on Higher Education.*

There is "a contradictory situation in research on higher education" in which knowledge about the condition of higher education varies widely around the globe. Beyond basic statistics about such aspects as numbers of institutions and student enrollments, there is little comparative research and analysis on a variety of important contemporary topics, compounded by the disequilibrium between industrialized nations and the Third World. Some areas deserving research focus internationally include autonomy and accountability, the management of decline in resources, the measurement of outcomes, the proper role of the state sector and the private sector in higher education, the appropriate role of higher education involvement in various aspects of society, and the role of research itself within higher education. Furthermore, Third World scholars and researchers need to be brought into discussions of higher education, international agencies such as the World Bank and UNESCO ought to coordinate their educational research efforts, and there should be developed better avenues for disseminating throughout the world research on higher education.

Barros-Mani, Nicolás. *Meaning and Implications of Transference of Educational Policies and Techniques in Academic Administration.*

Despite severe budgetary limitations, Latin American higher education is undergoing review, improvement and modernization. The "man-society-culture interaction" ought to be one of the key concepts involved in a re-examination of the university. The "postmodern" era since the end of World War II has brought deep and lasting changes in the nature of societies, especially where science and technology have affected the classification, dissemination, acquisition and exploitation of information. Thus the status of knowledge has changed from questions of truth to questions of utility, with consequences for higher education as it attempts to reconcile its cultural heritage with the demands of sometimes conflicting new views of knowledge and power.

Briceño, Rosa C. *Agenda for Research on Higher Education with Latin America Focus.*

The impact of privatization trends in higher education, especially as they relate to issues of access and equity, ought to be a primary area of higher education research. Such privatization appears to contribute to increasing socio-economic stratification. Past research and policymaking on access and equity issues has tended to ignore gender, and in particular, the interaction of class and gender in opening opportunities for higher education. In addition to access, the environment that affects students' lives, both in school and beyond, needs to be researched. Other areas that bear inquiry include the situation of faculty, particularly women, linkages that would permit collaboration and dissemination of information, and "ways in which universities can play a significant role within the framework of 'Education for All'."

Freeman, Kassie. *The Impact of Changing Economic Systems on Higher Education Planning: The Case of Hungary.*

The shift from centrally planned to free-market economies in Eastern European countries will mean significant changes for higher education's contribution to the successful economic competitiveness of these countries. Given the differences in work force preparation between the two types of economies, higher education in formerly socialist countries faces curricular changes to meet market economy expectations as well as enhancing individual educational benefits. In the case of Hungary, planners are attempting to address such issues as institutional freedom in decision making and curricular control, expanding student opportunities for education, and the development of private universities. The results of this planning could serve as a model for other Eastern European countries undergoing similar changes.

Hoa, Tran Phuong *What Kind of Research in Higher Education?*

Higher education in Vietnam has been undergoing reform since 1988, with the aim of providing students with basic knowledge in a wide variety of subjects as well as specialized training. Specialization had dominated higher education prior to the reform. Problems are still present, however, in the form of outdated materials, lack of well-defined curricula, textbook shortages, and teachers lacking the skills to engage students in other than rote learning. Current research in higher education concentrates on problem-solving projects involving "technical innovations and their application in the community or industries." There is a critical need for systematic research on all issues related to higher education itself, with priority given to curriculum development and teacher training.

Kinyanjui, Kabiru. *Strengthening Research Capacity of African Universities.*

African universities are becoming increasingly marginalized as the primary producers of knowledge because of a variety of factors both within and outside the institutions. Institutional factors include budgetary constraints, increased enrollments, deterioration of libraries and facilities, and the decay of intellectual and professional life. Outside factors include state intervention that diminishes institutional autonomy, and the emergence during the last two decades of alternative institutions for production and delivery of research and policy analysis, among them the African Development Bank (ADB), the World Bank, and UNESCO. Research publications from these organizations frequently influence policy in African countries. Strengthening the research capacity of African universities will require attention to graduate education, upgrading the skills of researchers, their laboratories, libraries, and teaching materials, and creation of an environment that sustains creativity, academic freedom, and the emergence of research communities.

Lacey, Colin. *International Universities and Small Island States: A Collaborative Development Model in Education.*

Small island states that lack their own universities offer established universities "some opportunities to develop mutually beneficial relationships of a long term nature." A stable contractual arrangement would give universities access to systems where application of research and training expertise would yield measurable results coupled to an understanding of factors that are actually influenced by education. Concomitantly, the island states would receive the benefit of highly trained and knowledgeable personnel who would have a long-term commitment and responsibility for a particular system. Although the costs for such arrangements might at first seem prohibitive, because of the "case study" feature of this approach, as well as the shorter time frame for completion of changes, there would be an early return

on investment in the form of a successful development model in which education plays a significant role.

Lianqing, Qiang and Hongming, Hua. *The Status-quo of University-run S&T Industry in China and some Proposed Ways of its Development.* **(Although these scholars were invited, they did not attend the Forum of Experts and they do not appear in the list of participants. They did send a position paper. They are from the Higher Education Research Institute, Fudan University, 220 Han Dan Road, Shanghai, Peoples Republic of China, FAX 862-1548839, Telex: 33317 HUAFUCN.)**

Since the founding of the People's Republic of China there has been a strong link between science and technology (S&T) research in the universities and applications on farms, in factories and other industries. Nonetheless, there continue to be problems transferring the S&T knowledge to the practical sphere, as well as resistance among some in the universities to the emphasis on immediately practical research and development. Some possible areas for study are the mechanisms within the university that control S&T research and dissemination, the limitations that ought to be placed on direct involvement by university personnel in S&T exploitation, an analysis of the types of products on which S&T research ought to concentrate, the interaction of S&T research with other academic spheres of the university, cooperation between domestic and international S&T enterprises, relations between the products of S&T research and the actual markets for these products.

Nikandrov, Nikolai D. *Research in Higher Education: Identifying Priorities.*

Although there is a great deal of research available on all aspects of education, often this research is not used because it is either unknown, not readily available in a usable format, or deemed unnecessary for practice. In the USSR changes in this attitude towards research are becoming apparent. Some areas of research being given priority in the USSR are higher education policies concerning educational structures, equality and access, governance, and financing; the content of higher education as it concerns aims, the balance of general and higher education, the humanization of education, and expectations about work force preparation; and finally, teaching methods and the technology of education.

Ortiz, José Alirio. *Needed Research on Higher Education Aimed to Equalize Educational Opportunities of Access.*

Many national governments and international agencies have devised policies and provided funding to enable capable young people from marginalized sectors of the society to have access to higher education. Thus far these egalitarian policies have been ineffective. Students from poor backgrounds or groups traditionally discriminated against either do not enroll in

higher education, or if they do, they find themselves in a "complex, sophisticated, impersonal and highly demanding academic environment" for which their previous experience has left them unprepared. Most do not remain in higher education. Research is needed on the variables that influence individuals' decisions to take advantage of higher education and on strategies to effectively implement equalization policies.

Orzack, Louis H. *European Community and GATT--Policy for Higher Education, Professional Entry and Practice.*

The development of the European Community (EC) and its proposed Single Market, and the recently revived negotiations of the General Agreement on Tariffs and Trade (GATT) constitute two major forces that will likely influence higher education policy and research, especially as they relate to professional entry and practice. The EC intends to have developed by December 31, 1992, rules that "require elimination of national boundary restrictions and internal discriminations that prevent or inhibit cross-border flows of capital, services, and people." The GATT negotiations "aim at liberalization of trade," including trade in services. Thus both the EC and GATT initiatives will have a major impact on educational and licensing requirements for entry and practice in professions. Higher education research opportunities exist for studies of anticipated and consequential institutional changes and on demographic flows.

Redie, Agedew. *The Development of Higher Education in Africa.*

Approximately thirty years ago a UNESCO-sponsored conference on development of higher education in Africa recognized the need to find solutions to problems of adapting higher education to African conditions. That same need exists today. Without a clear plan for research that is "derived from the needs of society, the conditions of the national economy and the stage of scientific development," research is determined "by the individual inclinations of the scientists themselves." Researchers should be involved in planning a research agenda that links basic and applied research, has an interdisciplinary character, has links with the broader international scientific community, and, above all, provides the means for strengthening the education of teachers. A strong education system staffed by good teachers provides the base for building an equally strong research capability in the future.

Sadlak, Jan. *Research on Higher Education in East and Central Europe in the Aftermath of Recent Political Transformations.*

Given the recent political changes in East and Central Europe, higher education research concerned with these geographic areas should concentrate on studying the legacy of the socialist model of higher education and on assisting and evaluating the transformation process from socialist to democratic forms. This research agenda should be encouraged in the context

of regional cooperation by developing new modes of promoting, conducting and disseminating research; by encouraging the transformation of the journal *Contemporary Higher Education* from its former focus on socialist countries into a publication concentrating on East and Central Europe, by re-examining the role of UNESCO's European Centre for Higher Education (CEPES); and by encouraging the re-involvement of the United States and the United Kingdom in the work of both CEPES and UNESCO.

Schaefer, Hans-Dieter. *Letter to Forum Participants.*

Schaefer sent his regrets at being unable to participate in the forum but offered a summary of the program of a newly-formed project group for German higher education. The topics of the program include statistics of higher education; equivalence between curricula in "old" and "new" Bundeslandern of Germany; transition processes and procedures of graduates, especially women, to employment; student orientation and guidance; access to higher education, and international relations of higher education institutions.

Sharma, G. D. *Research on Higher Education in India.*

Current research on higher education in India concentrates on the pressing problems of the higher education system rather than on broader contexts. Most studies pertain to the economics, psychology and sociology of education. Other categories of interest include student unrest, access to education, and examination reforms. Future research effort ought to be broadened to such areas as higher education and society; the efficiency and development of the higher education system; higher education and economic and social justice; and higher education and international cooperation.

Smyth, John. *Getting the Bigger Picture into Focus on Research in Higher Education.*

Higher education world wide is in a state of acute crisis, without a clear sense of direction, yet being driven by external forces that those in higher education neither understand nor control. It is necessary, therefore, to engage in research programs and policy development that attend to such matters as global economic and political restructuring, and the role of higher education institutions as "willing and compliant accomplices in formulating the terms of the new orthodoxy." Within such programs and policy development the issues of inclusion/exclusion, accommodation/resistance, and conceptual shift from education as a public good to education as a private and instrumental commodity need to be examined. Finally, the local traditions and histories of institutions also need to be explored and understood in the context of a radically changing global environment.

Xu, Yu. *Current Research on Higher Education and Agenda in the 1990s.*

Research on higher education in China began in the 1950s, but was curtailed by the cultural revolution during the 1960s and '70s, and resumed

in the late 1970s. Today there are a number of societies and associations devoted to higher education. These range from the very broad (e.g., Research Society of Ideological and Political Education of Higher Education) to the narrowly specialized (e.g., Society for Music Higher Education). A number are affiliated with government ministries. Graduate programs in higher education exist at seven universities. In the area of publications, some topics frequently covered are developmental strategies for higher education, adjustment strategies focusing on the world-wide technological revolution, and other modernization strategies. Articles on these topics appear in the more than 500 general and specialized higher education journals. There is a need for research in the areas of theoretical frameworks for analyzing higher education, reform theories, governance structures, relationships between research and teacher education, policies governing study abroad, and the relationship between higher education and societal forces.

Zajda, Joseph. *Higher Education and Social Change*.

Owing to its place in a centralized society, higher education in the USSR changed very slowly during the last 70 years. *Perestroika* and *glasnost* have introduced the need for reform with the aims of raising academic and technological achievement in the face of the changing global economy. Such reforms include changes in administrative structures, development of institutional autonomy, responsibility and responsiveness, development of higher education's role in continuing education, and development of new and revised curricula. Also included in the reform was a "renewed emphasis on humanism and socialism." Because the intended reform of Soviet higher education derives from response to structural changes in the economy, however, it remains problematic whether the reforms will be fundamental or superficial in institutions that historically are slow to change.

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